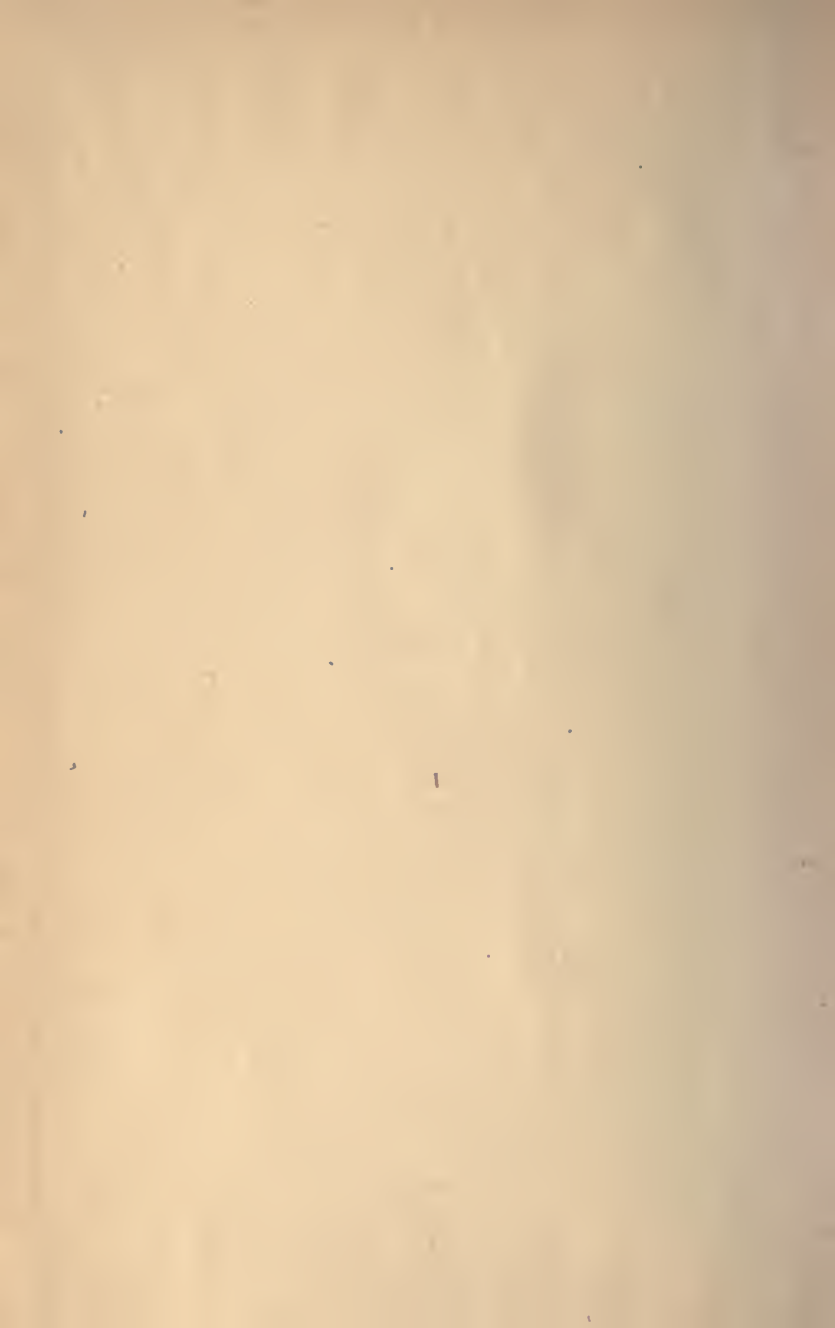


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THE BETTER COUNTRY



DANA W. BARTLETT





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A nation at work in human uplift

THE BETTER COUNTRY

BY

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To

THEODORE ROOSEVELT
GIFFORD PINCHOT
JAMES WILSON
FREDERICK NEWELL

*and that group of constructive workers in our government
service who, during the past decade, have stood for
Justice and Equality of Opportunity, and who
have always "set the common good of all of
us above the private gain of some of us,"*

This Book is Dedicated

PREFACE

The vital welfare of a nation is of larger import than the physical extension of its borders. The effort to raise life to its highest value once the work of the individual or the group is now recognized of such importance that the government itself has entered into social service and the nation has acknowledged the work of human uplift as its highest prerogative.

The purpose of this book is to point out some of the lines along which our nation is moving toward a larger co-operation in the interest of all the people, the plain people as well as the prosperous; to show a nation at work in internal improvement rather than in foreign conquest; to exhibit real democracy in the forming.

This is not intended to be an exhaustive study of all of the uplift work of the nation, but rather illustrative as to methods employed and somewhat suggestive as to what more can be done.

In order to trace the development of National Social Service, it has been necessary to include the description of many of the successful efforts along state and municipal lines.

I wish to acknowledge the courteous treatment on the part of all government officials when approached for information. The readiness of response on their part and the completeness of the facts which they furnished makes research work in government matters a pleasure. I am greatly indebted to various federal departments for the loan of many of the illustrations used in this book.

DANA W. BARTLETT

Los Angeles, Cal.
January, 1911

CONTENTS

<i>Chapter</i>	<i>Page</i>
I SOCIAL SERVICE	1
II RAISING THE STANDARD	16
III NATIONS AT WORK IN SOCIAL UPLIFT	36
IV WEALTH FOR ALL THE PEOPLE	62
V CONSERVATION OF A NATION'S RESOURCES	97
VI AGRICULTURE'S OPPORTUNITY	133
VII BUILDING HOMES.....	167
VIII ENRICHMENT OF LIFE	206
IX IN THE LIFE SAVING BUSINESS	250
X EDUCATING THE PEOPLE	306
XI IMMIGRANTS.....	359
XII SERVING OTHERS	405
XIII THE ARMY OF PEACE.....	455
XIV MORE DEMOCRACY	493

ILLUSTRATIONS

A nation at work in human uplift.....	Frontispiece
	<i>Page</i>
Desert land made valuable by irrigation	76
Frederick Haynes Newell, Director of U. S. Reclamation Service	83
Old way—Logs cut and left together, Lodgepole pine, Colorado	98
Gifford Pinchot, former chief of U. S. Forest Service	104
The land logged with care and protected from fire. The timber and wood keep coming	119
Digging canals to carry water to distant water valleys.....	126
James Wilson, Secretary of Agriculture	140
Future homesites for the people	156
Clay road, Eastover, South Carolina	200
The government hospital on the Panama Canal.....	229
Teaching the people how to build good roads	238
The government is building good roads	241
The oxygen helmet in life-saving	259
View of Fort Stanton, New Mexico	283
Wallipai school boy at Hackberry. Trained in a government school	317
Educating the Indians	326
Statute of Liberty on the Dome of Capitol, Washington, D. C.	445
In the Yosemite National Park	450
The design of the Hague Peace Palace which received the First Prize. By L. M. Coronnier, of Lille.....	470
A Fourth of July fiesta at Iwahig, 1907, each division with float showing work	485
Los Angeles makes its own cement for the great aqueduct	491

CHAPTER I

Social Service

A nation at work in human uplift—that is the ideal, yet we have as a people fallen short in our treatment of the hungry, the naked, the stranger, the sick and the prisoner. At last we are beginning to understand the meaning of poverty, the number of those who are living below the poverty line, the amount of wretchedness and misery which is to be found in every city. In fact, now for the first time we are beginning to learn how the other half lives. It took Booth to show us darkest England and its submerged tenth in Whitechapel. It took Jacob Riis, by turning the limelight upon the reeking New York tenement, to show us its squalor and breeding places of disease. We have heard the cry of the outcast children, voiced in pitiless wail. Social settlements have sprung up, every one of which has become a center for the gathering of facts regarding poverty and disease.

So we have been forced to take notice of

conditions and ask ourselves the way out from this wilderness of despair.

It was Huxley who said: "It is certain that there is an immense amount of remediable misery among us. Unless this is effectually dealt with, the hordes of vice and pauperism will destroy modern civilization as effectually as uncivilized tribes of another kind destroyed the great social organization which preceded ours."

In this the one word to be emphasized is "remediable," and if this is so then we need not lose heart, but learn how to apply the remedy, believing that in time the misery of the world will decrease.

As we have been learning our lesson, what have been the steps by which we have gone forward? It is a far cry from the time when the aged and the weak were exposed to die, to this day with its hospitals and homes for the infirm, and the progress has been slow throughout the weary years.

The first movement toward the better way came to the world when a few rare souls moved by the spirit of loving service gave themselves in gentle ministry to the poor and needy. They could not check the plague, but they could cheer the dying and bury the dead; they

could not furnish employment, but they could divide the loaf of bread with the hungry; they could not stay the ravages of war, but they could be nurses on the battlefield.

This spirit of loving service has not grown less but has rather increased as the years have passed by and the deaconess, the sister of mercy, the Salvation Army lassie, and the mission worker have given all that they had to "the least of these."

While these loving souls have labored, others have given their money, asking only that the sight of wretchedness and misery be kept far from them. Helpful as were these ministrations they afforded no final solution of the problem of poverty, for the great crowd of needy ones never grew less and the clamorous cry for help rose and fell in ever increasing power.

That something more had to be done was very evident, and the leaders in the great humanitarian movements said: "System is what we need." And so the next great step was in organizing charity.

This was certainly a gain, for duplication was avoided. There was less of pauperizing and more of the personal touch of the friendly visitor. Men who had fallen behind were

taught thrift and self-reliance and aided in their movement to a larger manhood.

But organizing charity did not seem to lessen greatly the amount of poverty and wretchedness. We were handling results, and failing to reach the cause which lay farther back.

A new type of worker came forth as a searcher for this cause. Usually he was found in some settlement, not as an old-fashioned sociologist, studying outward conditions, but rather as a brother of the helpless who was seeking to answer for them the almost inarticulate cry of their hearts.

Those who have spent years in the very centers of unrest, with one accord are saying that much of the disease and death, crime and poverty, is preventable—yes, that is the word, “preventable.”

The mission worker tenderly comforts the mother in the tenement, who has lost her babe. That is good, but better still is the work of the city nurse who through the long, hot summer cares for the children in other tenements, instructing the mothers in the proper use of clothes and food, and perhaps sending both mother and babe into the country for a week, thus saving their lives.

Perhaps the tenement inspector discovers the deadly sewer gas and warns the owner to make repairs, and thus keeps one more of "the least of these" from being buried in the potter's field. Better still, because Jacob Riis has spoken, the city itself has moved to the destruction of the death-dealing tenement and a play-ground takes its place, and new sanitary dwellings house the dispossessed.

We call this a part of a great social movement, yet we must also call it a spiritual movement, as it stirs the hearts of men in every land. Tolstoy says: "Mankind is about to be seized with a frenzy, a madness of love."

"This will not, of course, happen smoothly or all at once; it will involve misunderstandings—even sanguinary ones, perchance—so trained and so accustomed have we been to hatred, even by those, sometimes, whose mission it was to teach us to love one another. But it is evident that this great law of brotherhood must be accomplished some day, and I am convinced that the time is commencing when our desire for its accomplishment will become irresistible."

Inspired by this message, let us read again the familiar words of the Christ descriptive of

the judgment day: "When I was hungry ye gave me food; when I was thirsty you gave me drink; when I was a stranger you took me to your home; when I was naked you clothed me; when I fell ill you visited me; when I was in prison you came to me. Lord, when did we all these things to you? As often as you did it to one of these, my brothers, however lowly, you did it to me."

A new spirit is taking possession of many students of the social problem. The old way of tenderly caring for the sick in hospital and dispensary is being reinforced by the new view that disease is something to be studied, overcome and prevented.

We once said that crime was normal, that heredity was a constant factor and that the best we could do was to build a prison, employ a chaplain, and endeavor to reform the prisoner. The new view is that crime is not necessary, that environment means more than heredity, and that most crime can be prevented if you only give the boy and the man a chance to live right.

In the old days we pitied the poor, but the new view that poverty itself may be blotted out, crystallizes our pity into remedial action.

Changed economic, political and social conditions may help to lift the burdens which have grown almost too heavy to bear.

The truest friend of "the least of these" gives more than a passing sympathy, or a coin tossed into the outstretched hand, or even a gentle word of cheer. He is a constructive and preventive worker, who, first of all, seeks to find out the cause of existing evils and then wisely applies the remedy.

He who would fulfill the social service needed today must not be like the one who taught the ragged school a half century back, for the demand of the modern world is deeper than clothes; deeper than daily bread; it is a demand for opportunity—a cry for a chance to be a man.

True social service means each for all, and all for each. It means working together for the good of all. It is altruistic in spirit; yea, deeper than that; it is vicarious; it has in it the element of sacrifice, the sacrifice of the lower for the higher, the sacrifice of ease and comfort and position, the sacrifice of the world's most coveted prizes, that mankind may be brought nearer the divine ideal.

Not alone to Jesus came the vision of perfected society. Many men throughout the centuries have dreamed of a day when righteousness and justice would take the place of oppression and fraud, and love would bind men into a real brotherhood. In increasing numbers men and women throughout the world are saying: "‘Count me as one who loves his fellow-men,’ and let me serve or suffer if by that means I can ease the pain of those who have so long suffered without friend and helper," and they are saying this because of the vision of a new social order which their eyes behold.

Perhaps we may more clearly understand the meaning of social service if we trace the growth of the communal idea. In the early days of the world's life the individual was lost in the family or the tribe. Each fought for the other against their common foes. Uniting into larger groups, the tribes became the nation, which was surrounded by a larger and stronger wall of defense against the hostile hordes pressing upon it from every side.

Later on the organization of society changed, and a few feudal over-lords ruled their serfs with a rod of iron. This was the beginning of

a rude and cruel individualism. The world moved on, men began to think, and the great value of the individual human soul laid hold of them. Then dawned the day of a new individualism. Each man as an individual stood upon a footing of equality before his God and his fellows. It was the day of opportunity for church and school. Each man could now make of his life what he chose. The way was at length opened to him for attaining the highest efficiency.

Church and school might have succeeded in saving the world had there not entered into the world's life certain great unsocializing forces. An intense individualism reacted upon democracy, upon industrial life, and even upon religious life. The great nineteenth century movement toward a pure democracy was checked because men were too busy with their own affairs to give attention to government, or they chose to make popular government serve their own advancement. Thus by criminal greed and misuse of public funds many officials became enemies of the republic. Treason was to be found in senate and state legislature and city hall.

Individualism in industrial life produces swollen fortunes without regard to the rights of others. A new industrial feudalism, with new serfs and new retainers, took the place of the simpler industrial life of an earlier century. The results of the new industrialism were seen in the growth of the slum, the importation of ignorant, unskilled workmen, the intense-competition which largely destroyed individual initiative and brought men into masses to be controlled as "hands" by a common head. These unsocializing forces brought about a condition in city, state and nation which has continued to grow ever since; and which now calls for change. Social service, then, the service which the present situation demands, means individual and collective effort to bring about a change in government, in industry and in social relations, which will make for righteousness and justice.

Because we are not all agreed as to the proper method of procedure in order to bring about the change desired, we are divided into schools and parties, oftentimes warring one against another; and yet if we only knew it, we are all workers together after a common

object, although approaching, it may be from a somewhat different angle.

One man writes the literature of exposure, thinking that it is enough to reveal the sin and grief and misery and greed of the modern world. Another belongs to a group that thinks that law enforcement and prohibition of evil will certainly make men good. Another works for constructive legislation and the establishment of institutions that will make the good attractive. Another becomes interested in some minor part of service for the community, often blind to the fact that others working in different ways are brothers of the common good.

To one man the reform of party politics is the one great end to be sought; to another the better day cannot be brought in except by a new party based on wiser social principles; to the settlement worker, city congestion is looked upon as a source of many of the cities' ills; to another the overthrow of the saloon, of gambling hells, and of the social evil, are the things for which he is giving his life.

These groups of social workers, like the different branches of the church, are divided

by sect and creed; but as the fences which have separated workers in the religious world are slowly going down, so in this newer field of service, the barriers are falling, and the allied forces are working together with ever increasing intelligence for the common welfare.

And this is necessary, for it is no easy task to raise the standard of living to the ethics of the law of love and the golden rule, even with the combined effort of all who are laboring for social uplift.

This movement for the improvement of existing conditions is world-wide. It is seen in China, in its awakening from the sleep of centuries; in Persia and Turkey, in the revolt of the people from the rule of tyrants; in Russia, in the heroic struggle for liberty which grows more determined every day.

In our own land the feeling of responsibility for the solution of problems relating to the social order is increasing. Men who have simply been money-makers have had a moral awakening, and are stirred to action by the facts which reveal man's inhumanity to man, and show, too, the moral corruption of modern politics.

There are many men who are freely using their talents and their money for a cleaner Los Angeles, a cleaner San Francisco, a cleaner New York, a cleaner society—a better world.

Reform is in the air. Men whose names have become household words are making a national fight in local fields. The same fight is everywhere on to restore the government of the people to the people, and to bring about reform in industrial life. These reforms must go hand in hand; for nothing has been shown more clearly than that behind bad politics there is bad business—bad business as seen in protected vice and bad business as seen too often in the bribery and debauchery practiced by the big interests.

But bad business has found something to reckon with at last. The conscience of our people is now awake. The wave of reform now sweeping over the country is a "demand welling up from the hearts of the people for higher ideals in politics, for better standards in public morals, for civic righteousness and for better government all along the line."

But social service to be effectual must be

constructive, as well as destructive. Not only must the bad be destroyed; not only must the better way be pointed out, but actual work must be undertaken and institutions organized that will crystallize in permanent form the best which has been revealed.

No better illustration of the right sort of social service can be found than that seen in our cities in the care of the child in school and playground; in the provision made for public baths; in the making of the city beautiful by definite plans, including the laying out of parks, the planting of trees, and the erecting of beautiful buildings; in the effort toward prison reform, where the making of the man is more thought of than the punishment of the criminal; in establishing, wherever possible, juvenile courts, parental schools, reformatories, the probation system, the indeterminate sentence and the parole.

Social service is also seen at its best in the efforts to safeguard life and limb in factory and on railroads, and in the conserving of the nation's health by making war upon the mosquito and thereby destroying yellow fever; by making a nation-wide campaign against

tuberculosis—the dread white plague; by guarding the sources of water supply and demanding pure milk, that typhoid may not sweep as a scourge over our cities—in fact by putting into use every remedial agency which science has to offer.

The best thinkers of today are saying that much of disease, accident, death, crime and poverty is preventable. If that is so, then in a measure each one of us is responsible if we do not work for prevention. The church as well as the social settlement is recognizing the necessity for preventive measures. Character-building will always be the chief work of the clergy; yet in every church there is an increasing number of those who are workers in the cause of civic righteousness and justice for all the oppressed.

The time is not far distant when the young men of the nation will enter social service as eagerly as they now seek public office through the ordinary devious ways of politics. And surely to work for the good of the people supplies a nobler incentive than the emoluments of office or the pride of political power.

CHAPTER II

Raising The Standard

The citizen is at last coming to his own, and the word "citizen" is now written large.

A few years ago this nation had a rude awakening when the people discovered that the great mass of voters had abdicated their rights as citizens and had allowed the affairs of government to pass into the hands of self-seeking politicians. Why was it that so many good men became careless, and without protest allowed bad men to rule in city and state? It seems to have been the result of an intense individualism, combined with a desire for wealth and personal pleasure which made many money-mad, and blinded their eyes to all else of social import.

If a city is composed of one hundred thousand such self-seeking individuals, each seeking his own aggrandisement, regardless of the welfare of others, then the common good will be without a champion, and the democracy that speaks for liberty, equality and fraternity will

cease to have a following. But even this intense individualism so evident in the pioneer might not have produced such evil results had not the growth of modern industrialism with its keen competition forced men into unscrupulous methods in order to win financial success.

To some this government was only a means to the end of enabling them to win more gold, even though every dollar of their swollen fortunes was a dishonest dollar. In order to secure in office men that were susceptible to bribery, the owners of monopolies and quasi-public corporations entered into politics and used every effort to corrupt the electorate. In this way they became enemies of every reform demanded by justice and public sentiment. In city and state, the majority of legislators were no longer servants of the people, but puppets of a corrupt boss.

To the average man the word "politician" had become unsavory; therefore, he could not afford for the sake of his business or good name to enter into a campaign for a public office. Had this condition gone on without protest, our vaunted democracy would have proved a failure.

But, at the dawn of the new century, a mighty change came over the minds and hearts of the people. Who can explain this great awakening of conscience, this arousing of interest in the common good? Who were the leaders who went before the people in this crusade for the right, and gave the word "responsibility" a new import to thousands of citizens? It may not be difficult to call the roll of these new crusaders, but after all may they not have been the product rather than the cause of the mighty awakening?

A change has come—not complete, it is true, but a beginning. Not all business men are seeking the almighty dollar only; and some among the rich are coming to socialize their wealth. The unsocial forces are weakening and the bad is slowly giving away to the good.

Governor Folk emphasizes this point when he says: "The present political awakening marks the beginning of a new age. The next few years will be distinguished as the time in which industrial problems are solved, the reign of special privilege brought to an end, and the doctrine of equal rights fixed in politics and in the conscience of mankind."

An aroused people are at last undertaking to solve the problem of real democracy. While most of the effort is put forth along what might be termed social service lines, yet the movement has reacted upon business, and new ideals of honesty are finding a place in the industrial life of this new day.

We have learned that honesty is the best "politics," and are slowly learning that all business, public or private, will have the most permanent success which is based on honesty and integrity. The individualism of a past century is giving away before the coming co-operation which is essential to the welfare of every city and nation. Who can say that the great combination of citizens for the extension of trade and the improvement of material conditions is not a part of the greater social movement, made manifest in the mighty changes which are already being wrought by the closer relations of all nations.

The opening of the Panama Canal, while primarily a business matter, will have both ethical and social results which will touch society in a thousand different ways. The completion of the Los Angeles harbor will put

the southwest in touch with the orient, with South America and Mexico, in a way that will make us feel that brotherhood is not bounded by national lines. Nevertheless, we are expecting the greatest results from the combinations of citizens who are directly interested in social service work of a special character.

There are now great organizations, civic and national, whose one thought is that of political reform and reconstruction. Municipal and civic leagues, national and local; voters' leagues and non-partisan organizations are militant bodies ever on the firing line watching for fraud and graft and illegal voting. Another group of citizens organized as the Anti-Saloon League are ever busy in the political field working in the interest of saloon suppression.

In many cities the citizens have organized associations for education along the lines of higher citizenship, notably the City Club, which has proven a great factor in many of the largest cities. Within the last few years there have come into being hundreds of citizens' organizations, working for human betterment; working for industrial reform, child labor, better conditions for women workers, shorter

hours; the establishing of devices that will make for greater safety of life and limb; and for the passing of old-age insurance and employers' liability laws. Other associations are working for the child, in women's clubs, civic associations, and mothers' congresses, seeking that every child may have a better home, a more perfect school, and the divine right to play.

So long as party machinery and other governmental forms remain as they are at the present time, some such form of activity on the part of citizens is going to be absolutely necessary if government is to be effective.

The National American Civic Association is an organization existing for the direction of the forces which make for a clean and beautiful country. It regards the home as the unit of our national life and the improvement of home grounds as the first step in civic betterment. Co-operating with such associations, the municipal art commissions and park boards are seeking to make the city beautiful, believing that by ruralizing the city it may be made more healthful and more moral, a place where the good may be made attractive.

In the growth of the idea of true citizenship, people are beginning to realize that there must be a unit in city life, not half good and half bad, not half clean and half unsanitary, not half beautiful, and half squalid; but every part brought up to the highest efficiency.

Working to this end there are many associations and congresses studying the question of health and attempting to eradicate the causes of disease. This leads into many branches of work. If the city is to be healthful, the tenement and slum must be abolished, the saloon must go, the water supply must be guarded, the sewer system must be of the best, the rats and flies and mosquitoes must be killed, the swamps must be drained and great care given to the appointing of the officials who do the actual work of the health departments. Somebody must also constantly watch the food supply, that the "pure food laws," wrung from unwilling legislatures, may be rigidly enforced; for if the milk supply, for instance, is not constantly under supervision, the mortality among the babies will help to fill the Campo Santo.

But there are diseases which are not local,

but interstate, and until our own government can enlarge its department of health, national committees of citizens must work together for the desired end.

There are other great national and local organizations working for prison reform, for now it is believed that much of crime is preventable and that to save the man to society is worth more than to punish the criminal for a term of years. It was soon discovered by those who worked for the establishment of the Juvenile Court that it was even more necessary to organize the Juvenile Improvement Association and strike at the causes which lead the young into criminal life. The National Conference of Charities and Correction gives up most of its program to the discussion of the causes and cure of destitution, crime and imbecility.

The average citizen of today is more of a man than the money-maker of a generation ago. His sympathies have been quickened, his fellowship is larger, he has a more perfect idea of government. Men of great ability and great wealth are beginning to use their power for the good of others. The captains

of industry are learning that to be good citizens, they must devote trained intelligence to the building up of city and national life. Every man must give himself to others if the city is to be made a better city and the country a better country.

The business methods of the past have not been such as to inspire the captains of industry to enter social service. The dominant ideas were individualistic, and competition absolutely eliminated all thought of the rights and interests of "the other fellow." The governing principle was "business is business," and sentimentalism found no place in the program.

Great fortunes were built up by employing "hands" instead of *men* to do the work. Little thought was given to the health, safety, morals or happiness of employees. If they worked through the long hours for a limited wage, no question was asked whether it was a living wage; if disease, accident or death removed a wage earner, never mind, there were many other immigrants ready to step in and do the work, for even less money.

Not all employers were of this hard-hearted

sort, for there have always been a few who understood the value of the human touch in industry. These were the pioneers of the new neighborliness; others watched them with distrust, believing that their humanitarian methods were mischievous if not positively harmful. But when those who criticized saw that in the factories where the working people received consideration there was less friction and the output was better, both in quality and quantity, they began to ask questions and consider the welfare of their employees.

Mr. Carnegie claims that the root of business must be always service to the community. If the business man is to be a helper in the betterment of society, then his first social work ought naturally to be directed to the advancement of those who are helping to build up his fortune.

There is coming into existence an aristocracy of wealth which is just as un-American as an aristocracy of birth. Without considering the question whether the many swollen fortunes were obtained by fair or foul means, it remains true that the possession of almost unlimited wealth gives greater power

than was exercised by the kings and lords of a past day. That the possession of such power is working for evil in the land is shown by the fact that it has been and is being used to debauch senators and legislators, and thus secure laws in favor of special interests, which should have been made for the good of all the people. This power has also been used to influence judge and jury, to such an extent that the people have cried out that justice was dead. Unless a rigid inheritance tax can break up these enormous fortunes, we can hardly imagine what will happen when this vast money power passes into the hands of those who have not earned one dollar of the almost uncounted gold they call their own and claim the right to dispose of as they choose.

Within the last few years a new class of capitalists have come into the public notice and a new name has been coined to describe them, viz: "Socialized capitalists." Under the old Jewish dispensation, men regarded their wealth as belonging to the Lord, and from the whole they gave back to Him each year a tithe of all that they possessed. In this new century there seems to be at least a few capitalists who feel that wealth is commonwealth,

inasmuch as a multitude labored together to produce it; and that, therefore, they ought to give back to the people for their good a tithe, at least, of the fortune which they had hitherto considered their own. True, this may not be the course of reasoning of the capitalist. It may be because, possessing power, he delights to do things worth doing, or may feel that doing helpful things is the only way of winning the favorable regard of his fellow-beings. Yet I prefer to believe that these captains of industry have at last felt the social impulse which is moving the hearts of humbler citizens, and want to do that which will be most helpful from their point of view for all their fellow-men.

But cities as well as individuals are entering into social service. The great corporations here and there are yielding up their monopolies to the city, and the citizens are receiving better service at cheaper rates. Water, gas, electricity, street railways, are among the few public utilities which will eventually come into public ownership, to be conducted for the common good.

The health of the people is of paramount importance, not alone the health of the favored

classes, but the health of all the people. If disease is left unchecked in the seventh and eighth wards, the prevailing winds may carry the scourge to every home in the ninth. Tuberculosis in the sweatshop may carry the white plague into the homes where the fine linen is worn. No city is safe from disease if spots of contagion are found anywhere within its borders. Thus the work of the Board of Health, the Housing Commission, and the Water Department takes on new importance, for the results of this work are deeply social. Working faithfully together, these boards may prevent the spread of disease, and thus lower the rate of mortality.

In the city where the Board of Health is efficient, one can hardly imagine that conditions could exist which would make it possible for a scourge to sweep off thousands as it did in St. Petersburg. A clean city in every part is the only ideal for a Board of Health. Seeking out and cleansing the source of disease is better work than the building of hospitals for the scientific cure of the sick. The time is not far distant when there will be co-operating boards—national, state and local—educating

the people in preventive measures, quarantining against foreign plagues, destroying the germ carriers, cleansing the breeding places, and making it possible to check all disease in its incipency.

The plumbing and sewer inspector may entirely eliminate sewer gas, that dread of a former day, which sent so many little ones from the tenement to the potter's field; the Housing Commission in a city can see to it that no death-dealing tenement is ever erected, but rather that the people are scattered in detached houses of the best type; the Water Commission must watch the water supply, for one case of typhoid on the watershed may scatter germs to a hundred homes.

Incidentally, social workers in many other departments help much in making a city healthy, such as food and milk inspectors, district and school nurses, directors of playgrounds and recreation centers, park commissioners and tree wardens, and all civic reformers who are working for a higher grade of efficient life.

The city has entered into social service in the matter of education. The educational

ideal of training for life and citizenship has brought about many radical experiments in education, and has led the public school to broaden its scope and usefulness, and rapidly become the most effective agency in the city for spreading happiness and wisdom among the people. The old pouring-in process is giving way to the newer idea of drawing out and of learning by doing things. It is what the child learns by doing that counts.

The entire life of the child is now under supervision; his physical as well as mental defects are remedied, and the doctor and the specialist are now closely related to the school. Proper buildings with proper provisions for play is an important part of the curriculum; and thus in our great cities there has come a response to a plea for a better chance for the children of the congested districts. Instead of dark and gloomy school buildings, surrounded by high tenements, the Boston architect, J. Randolph Coolidge, has recommended the erection of new buildings on the edge of city parks, and the transportation of the children to and fro at the city's expense. This will keep them all day from the peril of

the streets, and give them supervised play as well as instruction. This may prove to be the best possible solution of the problem of the child in the congested districts, until that happy time when the city shall be able to break up the slum and scatter the population out into the country.

To make socially effective the great school buildings with their millions of dollars of investment, they must be used for more than just giving so much instruction to the child, important as that may be. In the matter of education the night is as important as the day. The new buildings should all be arranged as neighborhood centers, for lectures, entertainments and concerts. The adult foreigners should find in them an opportunity not alone to learn the English language, but also to receive their first lessons in citizenship. A night polytechnic school may prove to be of greater value than a day one, for it reaches those who otherwise might not be able to secure the proper equipment for life, and who without it, would enter life with a handicap.

The city is becoming interested in all of its future citizens, and in its various lines of

social service is trying to reach in a helpful way everyone who needs. The rapid development of the park idea, from the small flower plot to the metropolitan park system, shows how great value is placed on recreation for all the people.

Within the last few years public baths have been opened in nearly all of the great cities of the land, and public comfort stations are now deemed essential to the health and morals of city dwellers.

The social service of a city attracts attention when applied to the recreation of the child. The playground and the small recreation park is in fact a play school destined to produce great results for the nation. Supervised recreation reduces crime, promotes health, cultivates the sense of others' rights, teaches the value of community life, inspires to cleanliness of body and neighborhood.

The city, by the establishment of the recreation center and the small park is taking to itself much of the work of the social settlement, and because it is supported by the people's money can accomplish a much larger work. By this new form of social settlement the foreigner can be assimilated; by it the city

becomes the teacher of the immigrant, where as formerly the saloon keeper and the ward politician were the only instructors.

Some cities have gone into the life-saving business, and instead of degrading manhood by the old methods of punishment, have undertaken to make men out of those who have gone wrong. Not content to handle only the results of conditions that make for crime, they have gone back to the starting point. They are asking through their commissions, judges and social workers what the conditions are that would lead a boy into crime. Is it truancy? Then establish a truant school. Is it bad home life? Then if the home can not be remedied, place the boy in a parental school. Does the boy need a guardian? Place him on probation under the care of a large-hearted man or woman. Let the adult first offenders be given this same treatment and the majority will be saved from prison. Let the victims of drink work on the city farm rather than have the oft-repeated jail sentence. Abolish the chain-gang, as Cleveland is doing and treat every prisoner as a man. When Tom Johnson was

criticized because the city of Cleveland had not made money out of the prisoners during his administration, he replied: "We are not trying to make money out of prisoners; we are trying to make men." What Cleveland is doing should be the ideal for every city. The higher ideals of service, once found only in the church, are now permeating all society. The church ought to rejoice that its allies in world betterment are now found in the mart, the court, the school, and in legislative hall.

Our cities are rapidly becoming great in material splendor. It remains for them to become great in the higher things of life. That this is the dominant thought of this decade is shown in the united efforts on the part of groups of workers and city officials to recognize as curable and preventable much of the disease, accident, crime, and poverty which now curse the city life. Governor Hughes well expressed the social hope when he said: "I have no illusions with reference to the future. Laziness, thriftlessness, evil passions, and inordinate appetite will continue to wreck human lives. But we can replace ignorance with knowledge; we can give access

to air and light; we can build barriers against infection; we can keep our city clean, wholesome and attractive; we can see to it that human beings may labor under conditions with proper consideration for life and health and efficiency, and we can make work for social uplifting fruitful and progressive."

When all of our city officials remember that they are servants of the people, then will the movement for the social uplift go forward with greater rapidity.

CHAPTER III

Nations at Work in Human Uplift

The governments of the world have been subject to change; the absolute becomes the limited or constitutional monarchy; the limited or constitutional monarchy becomes the republic; and the republic itself becomes more and more democratic.

The early American idea of democracy was that the least government possible was the best government. Everything must be left to private initiative, and only that done collectively which evidently must be done to produce the best results—such, for instance, as the care of streets, of the postal service, of prisons, and later the oversight of the public schools.

But private conduct of public service soon produced a monopoly and the people were forced oftentimes against their will to take on new departments of public service for the common good.

Yet, inasmuch as the cure of the evils of democratic government is always found in more democracy, the people are slowly coming to their own, and they, and not individuals or corporations, are to be the rightful rulers.

It is intensely interesting to note the increase in the various functions of government in this republic, which is becoming more and more paternal, for our nation is now doing things for the good of all the people which our forefathers would have thought impossible. Scientists and psychologists now talk of the unity of all life. The sociologist is basing his plans for civic betterment and social amelioration upon the same principle.

"No man liveth unto himself," is more than an ancient quotation; it is a statement of a fundamental law of life. Each for all, and all for each, is a modern statement of the same thought.

"Everyone for himself" is the law of the jungle. But slowly a new form of expression is shaping, and we are beginning to take pride in the things that are "ours," rather than in those which are "mine."

This idea of the unity of all life is illustrated

by the tendency to unify interest in city, state, nation, and in the larger federation of the world. It is noticeable in politics and religion. The search is going on for a common standing ground, and for unity in essentials. Fences are falling and non-essentials are forgotten. Family and neighborhood feuds, relics of the dark ages, are now being supplanted by efforts toward co-operation for the common good.

If unity of plan and effort is the foreword for the next decade of city life, much more is it the foreword of the nation as a whole. The original thought of a confederation of states conferring only limited powers upon the central government is slowly being outgrown.

This nation is one in interest and destiny. The Civil War settled that question once for all. The Mason and Dixon line had to be abolished, and so must all other lines that separate. The south, the north, the east, the west, are but points of the compass, and not sections of a common land—each striving for supremacy. One part cannot suffer without affecting the others, any more than the physical body can be well when one member is dis-

eased. If New Orleans has yellow fever, New York is alarmed; if Louisiana has the boll weevil in its cotton, the mills of Lowell and Lawrence at once feel the effect; if San Francisco has the bubonic plague, Washington moves for a nation-wide campaign against the plague-breeding rats. The cyclone, tidal wave, or earthquake, bringing death and disaster to thousands, loosen not only heart-strings, but also purse-strings in every city and village of the land. Sympathy knows no dividing line; suffering eradicates sectional feeling; if the heart is inspired with brotherly love it will not be long until the mind is moved by altruistic impulse.

As a nation, each part is interested in every other part. The problems of city government in New York or Philadelphia are as much ours as the nearer problems of San Francisco and Los Angeles. Jacob Riis or Jane Addams are working not alone for Manhattan or Chicago, but for the City of the Angels as well. Because of the "Ten Years' War" against the slum in New York, it will be easier for us to keep out the tenement and bring in the play ground; because of the success of Hull House,

our local social workers will be able to do far better work in the congested neighborhoods.

Our nation is being unified by the rapid changes in population. The eastern people are flocking to California; the northerners are flocking to the southland; the negroes are drifting west and north; the Irish, the Canadians, and the Slavs are dispossessing the Yankees on the New England farms. The fact is that a new race is in the forming through the inter-marriage of Teuton, Latin and Slav with Pilgrim and Cavalier—a new race, the most wonderful ever known, a new race in which pride of ancestry, of wealth, of culture, will be forgotten, and in which loyalty to truth and right will be the ruling motives.

This may seem like a dream and yet it is within the limits of possibility, and should become the vision of every lover of his fellow-men. When such a dream shall have become an actuality, co-operation for the common good will be as natural as has been the keen competition of the past age.

There are those who fear the growing paternalism of the government, but it seems to be one of the great world movements, and cannot

be stayed. More and more our nation is working for the good of all, caring for the health and happiness of the weakest and the most ignorant. It is in social service as well as the city and the individual.

When we think of the unity of the American people it takes no great stretch of the imagination to widen our thought to the unity of all mankind. Already we have movements which point to a great world-brotherhood as a final consummation. Famine in India, China, or Russia calls forth gifts of grain and money from America. The Red Cross and the Peace Congress show that the unity of all mankind is not an empty phrase. The world is slowly outgrowing its local battles and class contentions. Let us hope that our own beloved nation may lead in the movement of establishing the "parliament of man, the federation of the world."

"Nations at work in human uplift"—that sounds well but it has not always been the watchword for the rich political or industrial feudal lords. Those who needed the helping hand the least have always received the greatest share of attention from their govern-

ments. But a change of thought, of purpose, of effort, is now in evidence in every nation. The larger good for "the all" is meaning more than the gaining of riches and power by "the few."

You who read are realizing a change within your own minds, a new altruistic spirit has taken possession of you, and you are thinking of "the other fellow," the man without a chance, the one who has never known the equality of opportunity. What is true in your experience is also true in the collective mind in city, state, and nation; for, are we not living in the time of a great spiritualized social awakening?—a time which marks a great world epoch, the issues of which when written as history will seem as great and even greater than any of the world's historic revolutions?

These are the days of the rise of the common man, and there are signs on every side that the nations of the earth are taking heed of the weak and the unfortunate, and that "the slum is to be far more an object of consideration than the palace, the money-market, or even the factory."

But why this awakened interest in submerged citizenship? Why not continue giving the charity dole, or building the almshouse and the prison? Because the old way is too costly in life, in character, and even in those things that bear the stamp of the "dollar mark."

It costs a nation too much to allow a large percentage of its people to dwell down deep in the social cellars. The world is learning that it pays to lift men to a higher social, economic, and moral level; for the downward drift has always meant loss of human efficiency and that is always a heavy loss to the state. The sociologists have figured out that every efficient man is worth so many hundred dollars each year to the state of which he is an economic part. Then the outworking of the old law of the "survival of the fittest" means a distinct loss of so much wealth to the nation as represented by those who have been pressed to the wall and destroyed by their stronger mates. Influenced by the newer law of love, the grander work of making others "fit to survive" will produce results which will mean great wealth for the nation.

The poverty of slum life never builds up, never adds power, but rather weakens physically, makes its victim less valuable as a working force, and causes him to fall an easy prey to the evil temptations of his environment. He who is forced to live in a tenement, becomes a menace rather than a blessing to society. The disease and the crime of these plague spots are sure to spread to the more healthful neighborhoods, bringing sorrow and death to many households.

All this is preventable when we know the cause; and if so, why should there be distress and sickness and misery in the land when science or money or legislation can change the condition that produces them? Perhaps the city or state alone cannot accomplish this end, but when the nation works on the problem of crime and pauperism with the same sane and scientific spirit with which she drains the swamp in order to destroy the malaria-bearing mosquito, then will we be nearing its solution.

Not charity, but justice; not philanthropy which does something for others, but the spirit of co-operation which works with others; not individual effort but collective power applied

to great undertakings, is the way out. If the group working together in corporations can amass wealth, then the strong souls of a nation, united in effort, ought to produce health and happiness for all the people.

This book is written to show that the United States as a government has entered into social service, but this nation is not unique in this grand work; in fact, some of the nations are in many ways leading us in the work for the common good. Without pretense of making an exhaustive report of welfare work among all nations, we offer a few examples by way of argument to prove that the tendency of the nations is to work more and more for human uplift.

England is doing her part toward the solution of the world's great social problems. Among her various methods those which are attracting the attention of every nation are co-operation, public ownership, and municipal trading. Yet these, helpful as they are, may not be real solutions, but only guide-posts pointing the way out of the wilderness of human misery.

They tell us* today that the great co-operative movement bids fair to absorb the entire trade of Great Britain. But this did not seem possible away back in 1843 when twenty-eight Rochdale weavers who had lost in a strike for higher wages, facing greater poverty, wrought out the simple plan of co-operation in their little store in Toad Lane. A pitifully small beginning! But these early pioneers of Rochdale were dominated by a new spirit of service; they were workers together for the good of all. They refused to enter upon the warfare of competition for, to them, such a course was immoral; so like all others under the rule of an ideal, they labored on, sacrificing, teaching, saving, until the spirit of co-operation which they kindled and the co-operative movement which they inaugurated spread to every part of the land. The simple plan which they evolved was this: After the initial membership fee was paid, each member received his part of the profits in proportion to his purchases. That seems simple enough but by this means the profits, which otherwise would

*Charles Edward Russell, author of "Soldiers of the Common Good," is authority for many of the statements of fact in this chapter.

have gone to individuals or to trusts, went back to the people. Instead of the common people's money going to build up great fortunes, it returned to the homes that might otherwise be barren of comforts, bringing at least a measure of those things which make life worth the living. Already over two million of people are banded together in the British co-operative societies, and that number is rapidly increasing. They have established, not alone retail stores, but also warehouses, wholesale houses, manufactories, transportation facilities, banks, printing establishments, home building societies, and almost every kind of commercial enterprise. Sooner or later the trust must fall before this co-operative movement in England, and then will competition, backed by concentrated wealth, receive its death-blow.

The idea of co-operation has seemed good to many other peoples—France and Germany now possess many co-operative workshops, stores and agricultural societies. Austria, Switzerland, Holland, Italy, Sweden, Belgium, Australia, New Zealand, collectively count a co-operative membership reaching into the

millions. Co-operation means more than the saving of money for the obtaining of physical comforts. It has a spiritual side. "It exists to make life better." "These co-operators believe that this movement will work to destroy race prejudice, break down national barriers, obliterate armaments, and bring about universal peace." Great as has been the good accomplished by the wonderful Rochdale movement started by the Toad Lane weavers, the London slum still exists, and co-operation has not yet touched the starving millions of the submerged tenth. The evolution of the common good is not yet complete in England, or in any other favored nation. But England has had a vision that there is a still more excellent way of levelling up the world's workers, of dispelling poverty, and of giving every man a chance. It has said, "Let the public utilities be publicly owned and operated and then the rates will be reduced and better service secured for all."

No city has ever undertaken such humanitarian work, or made such effort to use its municipal powers for the good of its lowliest citizens, as the great city of London; and yet,

when the London County Council was formed, no one ever dreamed that one day it would not only operate valuable franchises but would outdo the whole world along the line of municipal trading. Fifty years ago, trade held sway, the city lacked in artistic ideals, and was filled with grafting scandals, familiar to American ears. In self-defence, parliament created a new kind of board to administer the affairs of the greater city and gave them extraordinary powers. This council is composed of 118 members, chosen by the qualified voters; and 19 aldermen, otherwise chosen. These all serve without pay and consider it a high honor to be of service to their fellow-men. The business of this council is to provide whatever can be provided by government to make life safer and more comfortable. The story of what this great council has undertaken and accomplished reads like that of a peaceful revolution. It has secured a majority of the street railways, and operates them in the interests of the people. It has some two score housing enterprises, putting many millions into an effort to make comfortable and healthful homes for its congested population.

For instance, it has covered 225 acres of Tottenham with flat houses, accommodating many thousands of persons. It has built cheap lodging-houses, straightened and broadened streets, let the light into innumerable tenements, built bridges, doubled the park area, opened playgrounds and baths. In place of building a bridge across the Thames at Woolwich, it runs a free ferry. It runs municipal theatres and is trafficking and selling like an ordinary merchant. This is going a long way toward reaching those beneath the line, yet there is a vast population still denied opportunity, and what is a man without a chance to live?

Many other English cities are coming to own public utilities, and so rapidly is this absorbing of private business going on that a careful investigator claims that "private ownership of franchises abroad is doomed." This again is England's effort "to protect the less fortunate from greed, to keep the weak from being the prey of the strong, to deal with the situation in which one man has too much and another too little, in which power gravitates into the hands of a few to the injury of the many."

Public ownership, as one method of solving these problems, has gone beyond the days of experiment. Few persons there are who would return to the old days of private ownership and competition.

The list of English cities which have taken over or built new street-car systems is a long one, and while not all lines have returned great profits, thereby lowering taxes, yet because these railways owned and operated by municipalities, "supply vast populations with frequent, comfortable, quick, and wonderfully cheap transportation," this method is preferred to the old way which is characterized by an almost utter disregard for the interests of the public.

Gas, electric, and telephone companies are rapidly being absorbed by the cities as their franchises run out; one-third to one-half of the cities now owning these utilities, giving the people far better results at cheaper rates. Scores of other large cities as well as London are now building model tenements and cottages to take the place of the miserable habitations of the slum dwellers. Lodging houses conducted by municipalities are increasing in

number. Slaughter houses owned and operated by municipalities insure pure food for the people.

It is true that co-operative public ownership and municipal trading have not yet transformed England into a co-operative commonwealth; yet they are helping to realize the social ideal of "obtaining social wealth for social use," and are securing to the people more of the fruits of their toil.

Germany, both municipally and nationally, is at work in human uplift. Believing that whatever makes the poorest people healthy insures a strong nation, it is endeavoring to make every city a slumless metropolis; for dark, noisome tenements threaten national vigor. The houses of the poor are in broad sunny streets, which are kept as clean as the finest boulevards, and the fronts of the houses themselves look like a hanging garden, for every housewife vies with her neighbor in making an artistic window box filled with flowers and vines. This is possible in Germany, for there the paternal government can effectually regulate the construction of tenements; can insist on wide courts, forbid

dark rooms, inspect the sanitary arrangements and regulate the lighting and cleaning of the halls.

If in Berlin the slum can become a national asset, if the poor can be housed with decency and comfort, then is there reason why any city in any land should have a submerged area?

Germany has undertaken public ownership to such an extent that an individualist might expect that all private initiative was destroyed, but this is not so; and there are few outside of the special interests who would ask the government to be less paternal. It seems to please, and a referendum would surely sustain the government and call for a still further extension of public ownership.

The government owns and operates the telegraph and telephone systems and in fact in most European countries these are part of the postal system. The German government owns the railways, and they are run in the interest of the traveling public, who are treated as the guests of the roads. The question of dividends is secondary to the comfort and accommodation of the people, and yet they pay the government large returns. The

railways are not in politics, nor are there railway lobbies as in this country, and so the people are the parties who are benefited by every dollar earned.

Look at the side of human waste. "Every week we kill more people than are killed on the entire German railroad system in one year." In order to increase transportation facilities, this government is spending \$350,000,000 on water transportation schemes. It goes without the saying that that which is aesthetic in music and art and architecture has not been neglected by a nation which seems to regard the health, education and happiness of its people as of the greatest moment.

Many other nations have a growing sense of social responsibility. The Scandinavian countries are struggling toward the ideal of equality: "Everybody's rights—the rights of women as well as of men—of farmers as well as urbanites; of the poor as well as of the rich."

Sweden has a broad conception of the term public health:—as meaning soundness, vigor, abounding vitality. To secure this end the nation has developed a system of exercise

which everyone must follow. They also furnish to the school children free baths, free dinners, free school books, free doctors, free dentists, and free oculists; and are no more pauperized thereby than are our pupils by free instruction.

In Norway three-fifths of the women vote for members of Parliament, and now Sweden joins Finland in giving parliamentary franchise to women.

All Scandinavian countries are, through the establishment of the Peoples' High Schools in the rural districts, creating a reaction towards country life. The dwellers in the crowded tenements are being turned toward the open fields. This initial movement is destined to spread around the world, as people learn that it is necessary to break up congestion, to ruralize the city, and to urbanize the country.

In America concentrated capital stands in the way of the common good. But Japan, learning a lesson from our failure to regulate monopoly, after the great war was over became an economic revolutionist; and as a government became banker, trader, and trust magnate; thus settling for all time the possible dominance of selfish capital.

Seven railway kings of the United States undertook to absorb the railways of Mexico; and as they had never been checked before, success was assumed; but the President of the Republic did not intend that the country should be dominated by foreign railway kings, so he quietly went into the market and bought for his nation a majority of the stock, and the rule by railways was stopped forever. Does this foreshadow the day when our land may be freed from the rule of Wall Street, and opportunity given again for the government to be administered in the interest of all the people?

Switzerland, the most democratic government in the world, has taken over its railway, telegraph, and telephone service, and operates them strictly for the benefit of the people. Its post-office service and public school system are of the best. Everything that the student needs in the schools is furnished free, and yet this does not pauperize this liberty loving people. This is a land without a trust, without graft, and without a political boss, for there the people rule. If other nations can take over the great public utilities and so operate them that it will prove a benefit to all the

people, surely this nation with its general care for the common good, ought easily to find a way of absorbing the vested interests which seem now to be a menace to its free government.

But perhaps nowhere in all the world has such rapid progress been made toward the co-operative Commonwealth as in the two British colonies in the far south seas—Australia and New Zealand. Not many years ago Australia was under the power of a land monopoly. After the great rush for gold was over, there were those who saw greater opportunities for wealth and secured from the Crown, grants of millions of acres of the choicest lands. A landed aristocracy was formed, and the laboring man, no matter how great his land-hunger, was not allowed to secure enough of it for his own tilling. This condition at last became intolerable, and a determined effort was made by labor and its sympathizers to break up the rule of the landed gentry, and substitute for it the rule of the democracy. At the beginning of the present century, the six original colonies were merged into the "Commonwealth of Australia," under a federal constitution—a

compromise government—something between that of the United States and Canada. Then it was that working-men, carpenters, bricklayers, stonemasons, farm laborers secured control of the government. Those that have been dispossessed of power say that the country is being ruined by these “low fellows” with their freak legislation; but those who have carefully studied the situation claim that there they are doing the things worth doing—the things for the common good, which others have only been dreaming about. It is evident that these labor leaders are not extremists, but “strive only to remedy the wrong that lies a stumbling stone in the path of progress.” In national affairs, they are seeking to secure the public ownership of every private monopoly; letting the government own the trusts that they may be administered for the welfare of all.

The public ownership of railways, telegraph and telephone systems seems to be pleasing to all, and provides for better service than when under private control. The parcel post, carrying parcels eleven pounds in weight, frees the people from the excessive charges of the express companies. So we see that in our desire

to try new legislation, we need not experiment; for we can find all the changes which have ever been suggested successfully worked out in these lands beyond the sea—woman suffrage, old-age pensions, compulsory arbitration, and so forth—and their success in Australia ought to warrant their adoption in this older Commonwealth.

Still farther on the road to the common good is the island nation of New Zealand, where the government seems to care most for the least fortunate. This is the "world's economic laboratory," but it was not always such, for a score of years ago "the few" owned the land and "the many" dwelt in poverty in the cities. It is a familiar story, this struggle for the rights of the common people. How, when the workmen gained political power, they were wise enough to do what the privileged classes in our land have as yet not found a way for doing. The law which these new lawmakers worked out, taxed so heavily the unimproved estates which were held as sheep pastures that most of the owners were glad to sell to the government, while others were forced to sell. The government subdivided the land and leased it

on such simple terms that every man was able to secure a home if he was an industrious citizen. Even the tramps were set to work on the roads and railroads, and paid partly in land, so that the tramp became a tax payer. The secretary of the Labor Department reports that he has put ten thousand men on the land who otherwise could have done no better than to drift along on the perilous edge of day labor, and to fall into dire straits at the first calamity.

Compare this with the condition of the slum dwellers of London or that of the army of the unemployed in our own land. New Zealand has given full suffrage to its women, even to the Maori women, and does not regret it. There the nation owns the railways, telephones, and telegraph lines, and thus is able to strike at the source of much of the graft with which we are so familiar. The government is acquiring land in the suburbs of cities, and is putting up model cottages for workingmen's homes. It loans money, and gives old age pensions; and by the enforcement of the arbitration law has succeeded in stopping strikes and lockouts. This island government,

under the leadership of men who have earned their living by common labor, has made life worth living for the great mass of men who before were struggling for existence. It has surely paid all of these nations to work for human uplift.

CHAPTER IV

Wealth for all the People

The existence of a few swollen fortunes can never make a wealthy nation. The owning of the sources of wealth by a few persons creates an industrial feudalism, with serfs and retainers, more vicious than the feudalism of the Middle Ages. Recognizing this as an established fact, many nations are now moving to limit greed and bring about a more just distribution of wealth.

The previous chapter has shown the methods employed—such as public ownership, municipal trading, co-operation, taxation of unimproved lands, exemption of improvements, excess condemnation, income and inheritance taxes, all of which make it more difficult to build up and pass on great estates to those who labored not to produce them.

In no land is the idea of private possession held more sacred than in America. This nation has become money-mad, and a new conscience, and new decalog have been evolved.

A new educational propaganda is demanded, placing the emphasis on commonwealth as over against private wealth; for under the influence of the desire of gain for personal ends, the larger idea of service for others is fast losing its power. In every money market of the land may be found thousands who are individualists in an age demanding social action. These men warring against all socialistic advance, are anarchists in their disregard for law, and in their contempt for government.

The massing of unlawful gains has caused a reaction—a peaceful social revolution which will yet check these lawbreakers, and bring about a more just distribution of wealth through a greater equality of opportunity. The ideal society is surely without extremes of poverty or riches, providing a competence for all, lifting all the people above want, taking away from them the fear of the poor-house, giving every man who is willing and able to work a chance for himself, and for securing a home and an education for his family. In it the law, "Thou shalt love thy neighbor as thyself," is put into practice. What do you wish for yourself—a vocation, an avocation, a

home, education, friends, opportunity? Then according to this law these things which you wish for yourself you wish for every other man. This is the new ideal of social service—the seeking to secure health, wealth and happiness for all the people. Few realize to what extent this nation has gone in its effort to change conditions and bring about a more just and equitable distribution of its vast wealth.

This, then, is the story which we are to tell, the story of a nation at work in internal improvement, rather than in foreign conquest—in enriching the common people rather than in aiding a favored few.

The real wealth of a nation does not consist in its great congested cities with their trade and commerce, their industrial plants, their skyscrapers, their trusts and banks and corporations; for the wealth which is abiding, the wealth which gives true worth to a nation is found in the strong character, the vigorous manhood of its citizenship, in the proper education of its children, and in the happy homes in beautified cities which take the place of the hovel and the ghetto.

Fundamental to the conserving of this

higher wealth of a nation lies the proper use of its land and water; for if ever the urban population should exceed the rural, then will the physical, intellectual and moral forces be weakened, and the nation will be poorer because of it. This is the reason for the cry "back to the land"—voicing the desire to escape from the artificiality of the city to the simpler and more healthful life to be found near to nature—and from the warfare of the competitive struggle to the fraternal cooperation of the modern agricultural community. Not alone then does the higher wealth, but also that lower wealth which is expressed in dollars, lie in the development of a nation's land and water. The man who makes the soil productive is a real wealth maker of the nation; for our food supply is of far greater importance than all our luxuries. The man who utilizes the forces and materials of nature produces for the welfare of humanity in grain and fruit and vegetables more wealth than is drawn from all the gold mines in the world.

The proper use, and just distribution of the nation's vast domains may well receive the best thought of the times. The magnitude

of the undertaking of giving lands to the people can be better understood when we consider that this nation has had at its disposal about two billion acres of land outside of the original thirteen states, and the sovereign state of Texas, where all public lands belonged to the state to do with them as it judged best. And even after the lavish free grants and extensive sales during the past decades, there still remain half a billion unappropriated acres in the arid regions, awaiting the touch of the magic irrigation rivulet, and the wise plans of distribution at the hands of a paternal government, to furnish ideal homes for many millions of people. No other nation has ever made such liberal gifts of land, not alone to its native sons, but also to every alien who sought for citizenship.

It will be of interest at this point to note the methods by which this nation distributed its vast acreage. After filling certain grants to officers and men of the Revolutionary Army, and to officers and men of the other wars, our nation adopted the plan of offering all unappropriated lands at public sale, auctioning them off in large tracts, and those lands that

were not bid in were offered afterwards at private sale.

After the government had continued under the policy of selling lands, it took another step, which was to adopt the pre-emption law. This law was of great value to pioneers, because it allowed them a brief period in which to raise the money to pay for their land. Under this law, they could occupy the land; and by filing a declaratory statement have a year in which to pay for it. Afterwards this law was so modified that they could have two and one-half years in which to make payment; and on surveyed lands they had the same purchase period, after the plans of the survey were returned to the local land office.

In addition to these methods of disposal, the homestead law was enacted, which in its main provisions has been one of the great home builders of the country. The defect of that law was what we may call the commutation provision. Originally a seller could enter his homestead, and, after living on it six months, could commute by paying the government the price; but, in many cases instead of

the man who made the original entry becoming the permanent occupant of the land, the property got into the hands of speculators. The law was subsequently modified so as to permit commutation in fourteen months, and at first the land office interpreted that law to provide that the settlers could commute within eight months after the first six months in which they were required to live upon the land. Afterwards the land office abandoned that construction; and today they require fourteen months' of actual residence before the settlers can commute. But even under that provision, the records will show that at the present time a large number of these homesteads are taken and commuted; and as soon as commuted and proved up and paid for they pass into the hands of speculators and middlemen, who hold them simply for a rise in value and not for the purpose of utilizing them for agricultural purposes. In addition to these safeguards other laws have been passed, which were no doubt designed for a beneficent purpose, but in practice they have not worked out satisfactorily. We had for instance, years ago, what was called the

Timber Culture Law. The object of that law was to promote the growth of timber on the treeless prairies, but experience proved it to be almost a failure. In many of the western states, which have these timber claims, a few trees were grown, but today on many of those old timber claims you can scarcely find a tree standing. That law has been repealed.

Other laws have followed, such, for instance, as the law allowing men to relinquish lands in forest and other reservations, and select new lands in other parts of the country. Years ago Congress passed an act relative to what they called the Mount Rainier Reservation. That reservation is within the limits of the North Pacific grants. A great deal of the land was of very inferior character, with little or no timber on it. Claimants were allowed, under the law, to relinquish that land and select other lands in lieu thereof, and under that law they selected some of the best timber in those western states. Later on came the timber and stone act, which required that the land should be sold at the minimum price of \$2.50 per acre. Until recently the Land Department has construed this to mean the maximum price, and

the timber land owners or other intermediaries who purchase these lands have often secured the most valuable pine lands for that insignificant price. The Land Department has now adopted a new ruling, under which they interpret the law to mean that \$2.50 is the minimum price, and that the government can charge a higher price in proportion to the value of the land. If that ruling is enforced, it will prove a great protection of public property; but in order to enforce it, the government, through its officials, will have to investigate and examine these lands, classify them, and determine so far as they can, the quantity of timber, in order to fix the price for which they should be sold.*

The time of the great rush for free homesteads were times of great excitement. The people flocked from the overcrowded east, from its rocky and worked out farms; and from its factories and workshops. The news of homes to be had for the asking went across the water, and the land-hungry people of the old world set sail for the new world, with its

*This description of methods of land distribution is summarized from the report of the Governors' Conference at Washington.

new opportunities. West of the Mississippi, this great crowd of homeseekers, alien and American alike, took up the march toward the frontier with its promise of future wealth and comfort. In prairie schooner and emigrant train, they journeyed westward. Many were the hardships of these early pioneers; they lived in sod houses and shacks, on treeless, windswept plains, far from social life, and the ordinary comforts of an older civilization—yet like all pioneers, they were willing to endure suffering because of the vision of a happy home for their children when the day of hardship was passed and gone. None of these home-seekers appreciated more fully this gift of 160 acres of rich farm land than those who came from the older nations:—Germans, Scandinavians, Russians, and a multitude of other aliens, who are now proud to call themselves citizens of this land of opportunity. In no part of the country can be found a higher average of wealth today than in these homestead states, where a paternal government has given the poor man his quarter section and bade him till the soil and build a home. As the new farmer turned the

prairie sod, he found that labor here brought such sure returns in wheat and corn and hogs that in place of the shack, he was soon able to build a brick or a frame house with up-to-date comforts. He was able to send his children to school and college, and was made to feel that he, himself, was a factor in the building up of a new country and a new society. Vast in extent as were the fertile acres of the prairies. there came a time when nearly every free section was pre-empted, and the railroad lands were sold to eager purchasers. Then the prairie schooner and the emigrant car were seen no more, but in their place long, slow-moving freight trains carrying back to the east the products of the great west.

With most of the desirable lands occupied, the stream of immigration was diverted from the western plains to the great cities. The rapid development of urban industrial life brought new aliens from Austria and Italy, while the religious persecutions in Russia and Poland brought a multitude of Jews. Pouring into the tenement districts and ghettos, this new immigration laid the foundation for many of the complex city problems which now call for solution.

The next great opportunity in the new West lay in the raising of cattle on the great semi-arid plains, which were still a part of the public domain. These almost boundless reaches were once the home of the buffalo, but these noble animals had been ruthlessly slaughtered, leaving a vast territory rich with nutritious dried grass, constituting a great pasture of two million acres free for all comers. Here the cattle owner and cowboy held sway, and here vast fortunes were made from long-horned steers. Those were picturesque days, wild and rough, but they could not last forever, for the pressure was ever outward from the region of rains toward the rainless belt. The barbwire enclosures of the ranches interfered with the freedom of the cattle ranges, the sheep encroached upon the grazing lands, and ere long the border wars were on between the cattle and sheepmen and the settlers—wars which are only now coming to an end.

Next came the beginning of the great irrigation era, with new possibilities in the arid and semi-arid regions, greater even than those found in the middle west in the days of the homestead rush. That irrigation furnishes a

better opportunity for ideal homemaking and scientific farming can easily be shown by the history of this method throughout the world. In a score of lands containing arid regions, irrigation is looked upon as the permanent and certain source of the greatest agricultural wealth. Under the method of artificial watering intensive farming is the rule, so that a few acres only are needed to support a family, this number ranging from one acre in China and other parts of Asia to four acres in the Po Valley and elsewhere in the watered regions of Europe. According to this ratio, an American homestead of 160 acres rightly divided would furnish support for an old-world village. The leading of water from the uplands to the desert is not the new dream original with the modern engineer. More than a thousand years ago the peoples of the plains of Mesopotamia forced the waters of the Tigris to transform sandy desert into a garden set with cities. This "gentle art of outwitting the summer sky" was well known in Egypt 1400 years before Christ, for before them constantly was nature's illustration in the annual inundation of the valley of the Nile. In the

old days in Egypt when irrigation and agriculture were at their height, it is estimated that the land supported a population of 20,000,000 souls. The British government is now seeking to restore the fertility of the land by building the great Assouan dam, one of the great engineering marvels of the world. In Syria, Persia, India, China, Spain, Sicily, Japan, Peru, was solved long years ago the problem of living in a rainless land watered only by the mountain snows, and the stored-up floods of distant regions. It is true, that much of this early effort of reclamation was exceedingly crude, being by bucket, wheel, or tilting trough; yet there is evidence that in almost prehistoric times great reservoirs and canals were built which have lasted for centuries. India, both past and present, furnishes a splendid example of the stupendous watering of parched lands. When present plans in India are carried out, it is said that 60,000,000 acres will be brought under the irrigating ditch—almost enough to drive famine forever from the land.

Because of the vast amount of well watered land available in the United States, this

country was slow to learn the lesson of the older nations. Not until the Mormons reached Utah in 1847 was the method of watering arid lands by irrigation tried in America. Brigham Young, wiser than his day, did not turn the waters of City Creek into ditches for mining purposes as had hitherto been done, but upon the sage brush desert around the Salt Sea, causing it to blossom and bring forth fruit for his multitudinous followers. On their twenty-acre farms, the Mormons have prospered, and many of them abound in wealth.

The success of the German Colony which settled Anaheim in California in the early fifties; of the Greeley Colony which settled in Colorado in 1870; of the Riverside Colony in California, which opened its first ditch in 1871, changing seemingly worthless land costing \$2.50 an acre into orange land now worth over a thousand dollars per acre—these and many other similar pioneer undertakings at length attracted widespread attention, and awakened hope that the arid lands might be put to better use than that of cattle pasturage.

By 1890 every state of the far west had its



Desert land made valuable by irrigation



great reclamation projects, either under way or on paper, some of them calling for the expenditure of millions of dollars. Great numbers of farmers flocked into these newly irrigated regions, quickly settling the lands which were the most easily watered; but troubles soon arose because there were no uniform water laws. Projects overlapped. Later undertakings upstream took the water away from the first users lower down. Contests over rights filled the courts. Lawyers grew rich while the farmers saw their crops die for lack of water. One by one these vexed questions have gradually been settled. Smaller water systems have been combined; and in some instances, water users have formed co-operative associations. In these ways, western irrigation is coming to its own.

While the projects which required only a reasonable amount of money to finance were under way, combined capital undertook the building of great storage dams, thus securing thousands of additional acres to possible settlers. Under this miracle of irrigation in its larger aspects, the seemingly unreclaimable desert has brought forth untold riches for

promoter and farmer alike. But not all of these larger enterprises were successful. Those who developed the projects were either exploiters, who overcharged for land and water or sold more land than could be covered by the available supply, or else failed to make a sufficient study of the catchment basin, or were furnished with insufficient data as to rainfall through a series of years, and a dry season would find them without water in the reservoirs for the farmers below who had accepted their terms in good faith. Then again there were projects too large even for captains of industry to risk their many millions upon in exploitation. These failures have slowly led to the development of the sentiment that the business of handling water in arid lands is in its essence a public rather than a private function. It has been the outgrowth of the idea of public ownership in every land; private initiative changing first of all into exploitation of the many by the few; the development of a growing demand for co-operation, culminating in the acceptance of public ownership as the best possible means of handling these great enterprises for the greater good of all.

Before considering the methods by which this government has undertaken to control the water and land of this Western Empire, upon the conservation and utilization of which depends the future development and prosperity of an area equal to two-fifths of the whole United States, attention must be turned to the other plans by which the nation has sought to give away the remainder of the great American desert after all available homesteads had been taken.

In March 3, 1877, Congress passed a law known as the Desert Land Law, whereby in eleven states and two territories, it was possible for a man to take up 640 acres of desert land, either surveyed or unsurveyed. In 1891 this amount was reduced to 320 acres. During the first, second and third years after making entry, the entryman must spend one dollar per year for each acre of land entered, for the purposes of reclamation and improvement. If at the end of four years, he can give final proof that he has expended \$3.00 per acre, he may receive a patent for the land. The Stone and Timber Law, passed in 1878, was another method by which government land went over into private ownership.

No doubt many have been aided by all of these laws to secure home sites as practical gifts from a benevolent government, but the assignment clause in these laws and the commutation clause in the homestead acts, opened the way for a vast amount of fraud being practiced upon the government. By the use of "dummies," and other illegal devices, hundreds of thousands of acres have been secured by the great mining, grazing, and timber corporations, which have grown rich at the expense of the people. These laws, it is said, have been notoriously used to enable individuals and companies to acquire public property for private speculation.

Another method of passing the nation's land into private control is the Carey Act of 1877, which authorizes the President to contract with any state in which desert land may be situated, binding the United States to issue a patent to the state free of charge, for a tract not to exceed 1,000,000 acres of such desert land as the state might cause to be irrigated, reclaimed, and occupied. As a matter of fact, the states have always entered into contract with private parties to irrigate

this land, only binding the companies to furnish water to the settler, within a certain time; to charge not more than a certain amount for water rights, maintenance, etc.; and to provide for ultimate transfer of the irrigation works to the water users.

Under the Carey Act the settler first makes a contract with the irrigation company for water. He registers this contract with the State Land Board, pays 50 cents per acre for the land selected and a fee of \$1.00, making a total of \$81.00 on a quarter section. On presentation of proof that he has occupied and actually irrigated one-eighth of the area, he gets a patent for his land. Good as was this act, both for the state and the settler, it provided no check upon speculation, that menace to the peoples' rights in the regions of sunshine and drought.

But why should men seek so eagerly to obtain possession of desert land? Simply because other lands have long since been appropriated, and the knowledge that the watered desert will produce the greatest crops, leads men to rush by thousands to secure a few acres at the opening of every Indian reserva-

tion, and under every new ditch and reservoir site even before the water is turned upon the land. The richness of this desert land which heretofore had grown only sage brush, mesquite, and cactus, is the wonder of the world. In the east the constant rains wash out the chemical energies of the land, but in the rainless belt, lands have been constantly enriched with the accumulated potash, magnesia, sulphur, lime and phosphorus of the ages. The farmer also utilizes only as much of the water as is necessary for his crops, thus preserving the natural strength of the soil. With the knowledge of what arid America holds in store for mankind, a few men of foresight have labored through the years unselfishly, with the hope that not only would the desert be reclaimed for the use of man, but be saved for the actual homemakers; and that its great wealth might be divided among millions of citizens rather than possessed by a few exploiters.

Amongst these farsighted pioneers of a new epoch, Major John W. Powell is well worthy of notice. His daring descent of the Colorado River brought him into public notice, but his



Frederick Haynes Newell
Director of the U.S. Reclamation Service

greatest work was a report on "The Lands of the Arid Region." Working first under the Smithsonian Institution, then under the Interior Department, as director of the Geological Survey, he was able by his constant and accurate investigations, to lay the foundation for the splendid work of reclamation now going on.

Mr. Frederick H. Newell,* the present head of the Reclamation Service was the first to have the vision of the plan which is now in operation. As hydrographer in the Geological Survey, he was able to gauge the streams, make maps of the water courses and reservoir

* "There have been laid out systems which involve the ultimate reclamation of several million acres. Large works whose magnitude is such that they have been passed over by private and corporate enterprise have been built. In all it may be stated that in round numbers there were ready for irrigation at the beginning of the irrigation season of the present year over 5,000 farms, with an aggregate acreage of 700,000 acres. Storage of flood waters had been created and in actual use to the extent of a million acre-feet. Canals and ditches were ready for use of an aggregate length of more than 3,000 miles, a distance equal to that across the United States. Fifty-eight tunnels had been built of a length of 85,000 feet. Many thousands of smaller structures, such as headgates, flumes, bridges, turnouts, etc., were completed, a thousand miles of telephones in operation and yardages of earth moved comparable to that handled in the same time at Panama."

sites. He made the acquaintance of hydraulic engineers all over the country, visited the most promising sites time and again, and so was ready to use his acquired knowledge as soon as the Reclamation Act had been passed by Congress.

Another leader in this movement was a Californian, Mr. William E. Smythe, the author of a book on "Arid America," and one of the chief promoters of the National Irrigation Congress. He aided greatly in bringing the plan of reclamation to the attention of all the country.

But it was not until the Ninth National Irrigation Congress assembled in Chicago in 1900 that a concerted movement was made for a comprehensive national system for the storage of waters, and the reclamation of the arid lands in the public domain. This Congress demanded that water monopoly be abolished, and insisted that water be made appurtenant to the land irrigated, and that beneficial use be the basis, the measure, and the limit of the right.

Then began a systematic lobbying by the friends of this measure. The Newlands Bill

was introduced in Congress, but the Panama Canal debate was on and this far-reaching bill could never have been passed had it not been for the active interest of President Roosevelt. In his second message to Congress, he had put himself on record as follows:

“So far as they are available for agriculture, and to whatever extent they may be reclaimed under the National Irrigation Law, the remaining public lands should be held rigidly for the home-builder, the settler who lives on his land, and for no one else. In their actual use, the Desert Land Law, the Timber and Stone Law, and the commutation clause of the Homestead Law have been so perverted from the intention with which they were enacted as to permit the acquisition of large areas of the public domain for other than actual settlers, and the consequent prevention of settlement.”

President Roosevelt now became sponsor for the bill and its passage on June 17, 1902, will be counted as one of many of his great executive triumphs. On the 28th of that same month, the Panama Bill was passed. Great as will be the results of the joining of the two

oceans, in its relation to the welfare of the people, the Act of June 17 will be of far greater import.

• This law, known as the National Reclamation Act, provides:

“That all moneys received from the sale and disposal of public lands in Arizona, California, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, and Wyoming, beginning with the fiscal year ending June 30, 1901, including the surplus of fees and commissions in excess of allowances to registers and receivers, and excepting the five per centum of the proceeds of the sales of public lands in the above states set aside by law for educational and other purposes, shall be, and the same are hereby reserved, set aside and appropriated as a special fund in the Treasury to be known as the ‘Reclamation Fund,’ to be used in the examination and survey for, and the construction and maintenance of irrigation work for the storage, diversion and development of waters for the reclamation of arid and semi-arid lands in the said states and territories, and for the payment

of all other expenditures provided for in this Act."

The law provides that pending these examinations, public lands in districts under consideration may be withdrawn from public entry, except under the Homestead Act, and this without the commutation clause. If investigations prove to the satisfaction of the Secretary of the Interior the feasibility of constructing the works in question, they may be built from these funds and the public lands there-under disposed of under the Homestead Act, the entryman paying a price for the land proportional to the cost of its reclamation, and in ten annual installments, without interest, taxes or profit; and the law provides further that when the majority of these lands have paid these charges, the entire distribution system is to be turned over to the operation of the local Irrigation Association which is to be formed; the federal government however retaining possession and administration of the storage reservoirs and headworks of the system. No one is allowed under this Act to take up more than 160 acres, and the government advises that the amount of land be limited to 40 or 80 acres on one allotment.

If a man has acquired lands under the reservoir, he will only be given water sufficient to irrigate 160 acres; all the surplus land he must sell. In this way large land holdings are broken up, and the necessity of constantly living upon the land for ten years before receiving a final patent to the land puts all on an equality and shuts out the speculator, who is the foe to all schemes heretofore devised. The settler gets his land free, but pays the proportionate cost of building the works. This fund becomes revolving as soon as the cost of one project is paid in by the water users, so that the money is returned to the fund to be used over and over again in the construction of other works.

In June, 1910, Congress passed a bill providing for the issuing of certificates of indebtedness to the amount of \$20,000,000 to provide a fund for the completion of the reclamation projects already begun; and President Taft appointed an advisory board of five officers of the engineering corps of the army as provided in the new law.

Under the different projects already started, the cost per acre is from \$40.00 to \$60.00

according to the cost of the works. After the water users' association is formed, then the cost of irrigation depends upon the cost of maintenance of the ditches and the distribution of the water.*

No sooner had the act been passed than the Secretary of the Interior called F. H. Newell to the work of organizing the Reclamation Service. The facts so patiently gathered by this efficient public servant through his years of work in the Geological Survey were now of inestimable value, and his knowledge of the engineers available made it possible for him to at once set in motion the machinery of reclamation. Up to date 25 projects have been undertaken, reclaiming 3,198,000 acres; thirteen more are under consideration, which when completed will add 3,270,000 acres more; an area equal in extent to the agricultural regions of many states. This enormous area of land hitherto practically worthless, land which was returning revenue neither to the state nor to the nation, yet possessing the potentiality of becoming one of the richest and

*This act, well worth the reading, can be found in the Appendix, as also the list of land offices where information can be secured.

most fertile regions in the world, is being saved for the people without cost to the taxpayers or exploitation of the settlers.

Slowly but surely under this act, there is being inaugurated the economic conquest of half a continent. By the passage of this act, at a single stroke, the productive capacity of the republic was doubled, and the door of opportunity and of hope was opened to crowded millions.

The national government has gone into business—"a business in which all the people are stockholders and of which all the people are to be beneficiaries." Formerly the government was very willing to subsidize steamships, guarantee railway bonds, make vast grants of land to corporations to encourage the building of trans-continental roads; aiding private capital and thus building up the monopolies under whose oppression we are now suffering. The method of the Reclamation Act is the exact opposite, for it is the nation's first step in collectivism. The government is not only building dams and ditches, but roads and railroads wherever necessary. It runs its own electric light plants and makes its

own cement. Strange to say, the government has gone into business and is successful.

The social aspect of this wonderful movement will be discussed in a later chapter on "Building Homes." For the present it is enough to note that the nation has at last moved to stop exploitation, and to curb greed, while offering a chance to those who are suffering under economic conditions which are beyond their control. Fortunate it is for the nation that all this has come about when private individual initiative was reaching its end, and the combinations of capital were enriching themselves at the expense of the many.

If this nation can build the Panama Canal, conduct successfully the Panama railroad and steamship lines, bore a tunnel six miles long through a Colorado mountain, turn the waters of a river upon a dry valley across a mountain range, build the highest dam* in the world

ROOSEVELT DAM.

*"In the land of mystery, of lost races and hoary ruins, in the warm and sunny valley of Salt River in Arizona, one of the greatest engineering works in the world is now well under way. Many miles above the valley, in what was once an almost inaccessible region, peopled only by the murderous Apache and the old-time outlaw, the Salt River and its tributary, Tonto Creek, emerge

in an almost inaccessible region known only to Apache Indians; harness a score of wayward streams and make them work together for the good of man—if all these things so well worth doing can be accomplished collectively, with hardly a suspicion of politics and graft, who will fear or question when still more am-

from the canyon and flow across a broad, level flat. Here two thousand men are at work erecting the Roosevelt Dam, which is to be one of the highest in the world, exceeded in height by only one other, and that also a structure of the Reclamation Service. The Roosevelt Dam will be of uncoursed rubble masonry (sandstone and cement) with arch up stream. It will be 800 feet long on top, 235 feet at river bed; and its contents will be 300,000 cubic yards. It will rise 234 feet above the lowest foundations, and the height of water against the dam will be 230 feet. A power canal 18 miles long with a drop of 220 feet is now being utilized to furnish 4,000 horse power in constructing the work. When the reservoir is completed the water will flow in the river channel for 44 miles, and then be diverted by means of canals to the irrigable lands.

"The reservoir thus created by the dam will be one of the largest artificial lakes in the world. Its capacity will be ten times greater than the Croton Reservoir. It will contain more water than is stored by the Assuan Dam, on the Nile. One million four hundred thousand acre-feet, or enough water to cover that many acres a foot deep, will be held in this basis until needed by the farmers in the valley below. Ten thousand horse power will be developed from the dam and from drops in the canal, all of which will be utilized to pump the underground water of the valley to lands beyond the gravity systems." (Description by C. J. Blanchard.)

This great reclamation dam is now completed.

bitious government schemes are suggested, the working out of which will bring health, wealth and happiness to all the people.

Our nation is no longer a mere federation of states; it is even now a centralized administrative government. The old methods which meant monopoly for the few, through tariff, land grabs, etc., are passing, and the new methods which mean prosperity for the many are coming to the front.

Not content with turning the desert into a garden for the use of the world's restless millions, much has been done in reclaiming the nation's vast swamp areas, oftentimes worse than useless—a menace to the health of the nation. In February, 1908, Senator Frank P. Flint introduced the Swamp Drainage Bill, which failed to pass, but there are strong hopes for its passage in the near future.

“The object of this Bill is the adoption and application of drainage of swamp and overflowed lands on the same system that now is applied under the Reclamation Act. The receipts from the sales of government lands in the states specified are set aside as a general drainage fund. These receipts are to be

applied to the draining of such areas as after examination and survey by the Director of the Geological Survey shall be approved by the Secretary of the Interior, under such rules and regulations as the law may prescribe. The lands reclaimed are to be sold to *bona fide* settlers only, with no right of commutation, in tracts of not less than 5 nor more than 160 acres. The cost of drainage is apportioned among the owners of lands drained and the benefits of such drainage is to be assessed against the property. Payments for such improvements are payable in ten annual installments, thus returning the money for the use in successive enterprises, thereby creating a revolving fund.

The government report states that the area of swamp lands affected by this proposed legislation is approximately 80,000,000 acres scattered throughout 34 states and territories, comprising an area nearly as large as the States of Ohio, Indiana, and Illinois.

If it were possible to subdivide this enormous area into 40-acre tracts it would supply 2,000,000 settlers with homes and it would put 10,000,000 people upon lands that are now

practically worthless. They are not only worthless from an agricultural standpoint, but are a positive menace to the development of the country and thus to the people. Situated as most of these swamps and overflowed lands are, they are the breeding places of mosquitoes, so dreary and forbidding that even wild animals shun them. If reclaimed they would become the homes of a happy, prosperous, and contented set of home builders. The necessity for the drainage of swamp and overflowed lands has been recognized by European governments for many years. The advantages of such reclamation work was demonstrated in England, where there are over one hundred acts of Parliament pertaining to drainage. As far back as 1854 the Prime Minister of England insisted that an advance of public money be made. In ten years, \$36,000,000 was loaned for drainage purposes at three and one-half per cent, to be repaid in twenty-two annual installments. This amount was supplemented by further loans until most of the swamp and overflowed lands were reclaimed.

Holland, France, Italy, and other European

nations have all enacted liberal drainage laws which have resulted in great prosperity to the respective countries, besides greatly improving the hygienic conditions and surroundings.

It is undoubtedly the duty of the federal government to improve its own country at the least possible expense and to aid citizens to locate upon land where the most desirable homes can be made. This great work when fully carried out will be one more step toward the consummation of the governmental ideal that a government's chief object is to secure the greatest good of the largest number.

CHAPTER V

Conservation of a Nation's Resources

The reclamation of waste land is well worth the combined efforts of a great nation, but the conservation of a nation's resources may mean even more when we consider the good of all the people.

This has been a prodigal nation, wasteful of its inheritance; perhaps not more so than other nations, yet tardier than some in coming to itself, and in deciding to save all that remains, and to develop this to its highest efficiency.

A third of the land surface of this country was originally covered with magnificent forests a million square miles in extent, a domain so vast that the original pioneers did not dream of its possible exhaustion. But land had to be cleared that the little farm might be cultivated; fuel and timber had to be cut for private use; furthermore, the forest was a menace, for it cumbered the ground, and harbored

Indians and wild beasts. Every day became an "Arbor Day, on which a youth was praised, not for planting, but for felling a tree." The woodman's axe was the symbol of progress.

Following the effort to reclaim the timber land for agriculture and homesteads, came the vast lumbering operations for domestic use and foreign exportation. Besides the destruction through axe and saw, has been the destruction of fire, until the forests have rapidly diminished, and we have now reached the point where their growth is but one-third of the annual cut; and at the present rate of use, all of the standing timber will be cut within twenty or thirty years. To what other land can we look for help? The government reports that Canada can not supply our deficiency, for she will need all her timber herself. Siberia can not supply us, for her timber is too far from water transportation. South America can not supply us, because much of the timber of that vast continent is of a different character from that we use, and ill adapted to our need. We must suffer because we have carelessly wasted our forests. It is impossible to repair the damage in time to escape much



Old way—Logs cut and left together, Lodgepole pine, Colorado

suffering, although it is not too late to work hard to reduce it as much as we can.

One great reason for the exhaustion of the nation's resources in land, and water, and trees, and mineral, is found in the fact that almost priceless possessions have been passed over from national to individual or corporation control. It is true that without this liberal giving on the part of the government, the development of the nation's resources would never have been so rapid, nor would this nation have come so surely to the forefront in commercial and industrial activity. All might have gone well had the beneficent laws, created for the people's good, been carried out according to their original intent; but individuals and corporations began to grab the government land, and through fraud secured possession of millions of acres which should have passed into the people's possession.

The great lumber, cattle, sheep, and mining companies obtained vast stretches of land by purchase from the railroads. To the State School lands and other lands, "lumber jacks," "squatters," and settlers honestly obtained a title and then sold to the companies. "Dum-

mies" were also hired to take up land and turn it over to their employers; single companies in this way obtaining a million and more acres, thus coming to possess tremendous holdings which were originally intended for the benefit of the homesteader, and not for the enrichment of a few who were already rich beyond their need. How much greater would have been the wealth of this nation today if instead of these vast holdings of the land-kings, small farmers each tilling his 160 acres had secured the land as intended by the nation's laws.

The total grants made to railroad and other corporations as an inducement to open up new country in the far west, aggregate 266,000,000 acres, an area equal to France and Germany combined, which support a population greater than that of the United States.

The danger of all this lies not alone in the building up of a landed aristocracy nor even in the keeping of the people from the land, thus compelling them to crowd into the great cities, but in the temptation to skin the land secured at such little cost and use it up at once, thus exhausting all the resources which should have been conserved and developed. Other

countries have suffered in like manner, and it is time for us to learn the lesson, and stop the waste. Rome at one time held vast areas of public lands, but allowed them to drift into the hands of nobles and capitalists who evicted the inhabitants and held the lands as game preserves, or farmed them with the labor of slaves. Many reformers lost their lives in seeking to improve agrarian laws, and to recover the land for the people. No such dire results may follow similar effort in this country, yet many political and official heads may fall before the result is accomplished; the good cause may be obstructed, and its triumph delayed by hostile tactics, yet its final victory is sure. In time the people will come to their own, and as President Roosevelt has said, "the nation will put the interest of all the people in advance of any private interests whatsoever."

In the effort to conserve the remnant of the nation's resources, nothing has been more far reaching than that of the establishment of the national forests. While Washington gave the precedent by buying and reserving for the national government many thousands of acres

on islands off the coast of Georgia and Louisiana that there might ever be a supply of oak for the building of ships for the navy, yet because a wooden ship was displaced by iron-clads, these lands were again opened for settlement; and the original policy waited many years before it was finally put in action in the creation of great reserves. Not until President Cleveland by his proclamation of February 22, 1897, turned over at a single stroke 21,000,000 acres of public lands for the creation of the first forest reserves, did people begin to think of the necessity of holding these lands for the good of the people. This act raised a storm of protest, yet there has been a gradual change of public sentiment until now the forest reserves and the forest service are strongly established.

In 1891, President Harrison created the Great Yellowstone Reserve, and each succeeding president has added to their number, until 195,000,000 acres are now included in these reserved lands, with a force of 3,753 persons employed as caretakers.*

*NEW FOREST ASSISTANTS AND THEIR WORK.

Forty-seven young graduates of nine American forest schools

At first these reservations were called national reserves, because the first thought was that of saving them from private or corporate exploitation. The lines were roughly drawn, and much good agricultural land, and needed timber were locked up without income to the

have just received appointments as forest assistants in the United States Forest Service. These men have secured their appointments as a result of passing the regular civil service examination.

Forest assistants are men who have completed their preliminary training for the profession of forestry, as the graduates of law or medicine have completed theirs, and are ready to enter upon practical work.

There is a growing interest in the profession of forestry now and many young men are asking how to get into it, and what it promises. Gifford Pinchot, United States forester, in an address to the graduating class in forestry at Harvard University this year, said:

"The government and the country need more men trained in the knowledge of forestry, and it offers opportunity to make a man's life loom large and to count for much among the many phases of human endeavor. To be a good forester a man should combine something of the naturalist with a good deal of the business man. To know how to use the forest he must have, therefore, the power of observation, a fondness for nature, and the ability to penetrate her secrets. He must be resourceful, able to stand by himself, willing to undergo the privations of rough life, and capable of commanding the respect of rough men, who quickly recognize virility and genuineness of character, but will not tolerate pretense or the assumption of superiority. A forester should be sound in mind and body, and should make the fullest college preparation for the service. This service means a free, vigorous life in the open air, and a clear, straight, fine, wholesome, manly condition of life—*conservation*."

government. All this has been changed and now they are known as national forests, and their use is thus expressed by Gifford Pinchot: "The essence of conservation is the application of common sense to the common problems for the common good, implying the development and protection of resources, the one as much as the other."

Working on this policy, the Forest Service during the past year, received \$1,800,000 from grazing, mining and camping permits, and from the sale of timber.* That this annual income can be greatly increased and that the national forests may be made to produce an annual net income of many millions a year is seen from the fact that they embrace one-fourth of the timbered area of the country, and at \$2.00 per thousand feet stumpage, the merchantable timber alone forms an asset worth something like \$800,000,000 while the grazing charges should yield more than a million a year.

*The forage yield of the forest for 1909, which sufficed for nearly 7,700,000 sheep, 1,500,000 cattle, 90,000 horses and 150,000 cows, was utilized by more than 27,000 individuals and concerns, besides furnishing free grazing for milch cows and work horses of settlers, prospectors and travelers.



Gifford Pinchot
Former Chief of the United States Forest Service

The national forests are for use and not for exploitation. The homeseeker is allowed to select suitable land if he can find it, and homestead it for a home, but for no other purpose. He is given rights as to the cutting of fuel and timber for his own use, and the grazing of a limited number of his own live stock. *Bona fide* prospectors can search the forests for claims, stake out, locate, record and develop them as they can anywhere else on the public domain. The more people there are thus lawfully living in the forests, the more there are to fight the destructive fires. The timber is for sale, the selection being made under the best forestry methods, but preference is always given to the small user. Nine-tenths of all timber sales thus far have been in amounts of less than \$500. The range is for use and is not to be destroyed as in the old days. Cattle and sheep ranges are separated and the number limited so that no range need be overstocked. The government protects from fires and sees that the small man always gets the first chance. These national forests serve another purpose as great national playgrounds and health resorts, the importance of which will

be more greatly appreciated when the surrounding lands become more densely settled.

The forest-rangers are constantly employed in reforesting the burned-over lands, large nurseries being maintained for that purpose. Over 2,000,000 trees were ready for planting in 1909. This reforesting serves an important end in preserving the water supply for the valleys below. The killing of predatory wild animals by the Forest Service hunters and, the developing new sources of water supply, probably saved the stockmen more than they paid for their grazing permits. The reservation of one-fourth of the timber lands and their proper use is only a small part of the work of conservation.

The Reclamation as well as the Forestry Service, recognizing the probable results of the wanton waste of the natural resources, joined in an appeal for conservation. Little in the way of action could have been accomplished had not President Roosevelt with his usual energy, and without consulting precedent, taken up the subject. On March 14, 1907, he appointed the Inland Waterways Commission, whose duty it was to prepare and

report on a comprehensive plan for improvement and control of the river systems of the country; and the correlated subjects of forests, and their conservation; soil erosion; and the control of navigable and other waters for the purpose of industry and navigation. This was the beginning of the most remarkable series of commissions and congresses the country has ever known—worldwide in their influences.

On the 3rd of October, 1907, the Inland Waterways Commission held a meeting on board the steamboat, "Col. A Mackenzie"—President Roosevelt presiding, and decided to call a conference on the general subject of the conservation of the natural resources of the nation. In conformity with this resolution, invitation was issued to the governors of the states and territories to meet at the White House, May 13-15, 1908. In addition to the governors, the President invited three advisers to be selected by each governor, also the senators and representatives in the 60th Congress, members of the Inland Waterways Commission, and members of certain national organizations dealing with natural resources.

This first conference was held as per call,

and resulted in the appointment by the President of a National Conservation Commission, divided into four divisions, to consider the resources of water, forest lands and mines, the President merging the Inland Waterways Commission into the Section of Waters of the new body. Chief Forester Gifford Pinchot was made chairman of the Commission. Following this White House conference thirty-seven state conservation commissions were appointed and a large number of private commissions and committees to act in harmony with the national organization.

The first meeting of the National Commission was held in Chicago, June 19, 1908, and a decision was there made to take a census of our resources. To aid in this, the President directed the heads of the departments to render such service to the Commission as was in their power. A large number of department experts were placed on the work, thus greatly aiding in the census.

On December 1, 1908, the Commission met in Washington, formulated a report which was laid before the President and governors at the second Joint Conservation Congress. As

a result of the addresses and discussions at this meeting, it was made evident that conservation was a larger matter than that which was concerned in the United States, and so the President was instructed to extend an invitation to the governments of Canada, Mexico, and Newfoundland to meet in a joint Congress. The North American Conservation Congress was held in Washington, February 18-22, 1909. As a result of this meeting, the President invited all of the great world powers to meet in conference at the Hague.

In strange contrast with these movements that enlisted the hearty sympathy and co-operation of nearly all of the governors, students, and scientists of the whole country was the attitude of Congress on the reception of the President's message, in refusing to appropriate money for the conservation commission; the Committee of the House even refusing to report favorably to the House a resolution providing for printing 25,000 copies of the report of the Commission, thus preventing the people from gaining information.

The unpaid services of this Commission is

worthy of notice, these men giving as they did of their time and their talents to the accomplishment of their purpose for the good of all the people. The calling together of the governors at this time may form a precedent resulting perhaps in the assembling of the House of Governors for consultation on questions affecting the interests of the nation. In 1776 our forefathers joined in a Declaration of Independence; in 1908 the governors joined in a Declaration of Interdependence.

The reports of these conferences should be read carefully, and should be circulated especially among the rising generation. Such selections as the following show clearly the view point taken concerning the relation of the government to the people. Secretary Garfield expressed himself strongly, as follows:

The people as a whole own these natural resources and it is for them to determine whether the resources shall be used for the benefit of all, or be turned over to be used without regulation for the benefit of whoever may happen first to get a foothold in any special locality.

The resolutions adopted by the governors spoke earnestly in behalf of the people.

“We agree that the land should be so used that erosion and soil wash should cease, that there should be reclamation of arid and semi-arid regions by means of irrigation; that the waters should be so conserved and used as to promote navigation, to enable the arid regions to be reclaimed by irrigation, and to develop power in the *interests of the people*; that the forests, which regulate our rivers, support our industries, and promote the fertility and productiveness of the soil, should be preserved and perpetuated; that the minerals found so abundantly beneath the surface should be so used as to prolong their utility; that the beauty, healthfulness, and habitability of our country should be preserved and increased; that the sources of national wealth exist for the *benefit of the people*, and that the *monopoly thereof should not be tolerated*.”

William Jennings Bryan gave expression to this sentiment:

“It should be our purpose not only to preserve the nation’s resources for future generations by reducing waste to a minimum, but also we should see to it that a few of the people do not monopolize that which is in equity the

property of all the people. The earth belongs to each generation, and it is criminal to fetter future generations with perpetual franchises, making the multitude servants to a favored faction of the population, as it would be to impair, unnecessarily, the common store."

President Roosevelt set forth the rights of the nation with reference to private property, as follows: "The opinion of the Maine Supreme Bench sets forth unequivocally the principle that the property rights of the individual are subordinate to the rights of the community; and especially that the waste of wild timber land derived originally from the state, involving as it would the impoverishment of the state and its people and thereby defeating one great purpose of government, may properly be prevented by state restrictions."

The court says that there are two reasons why the right of the public to control and limit the use of private property is peculiarly applicable to property in land: "First, such property is not the result of productive labor, but is derived solely from the state itself, the original owner; second, the amount of land being incapable of increase, if the owners of large

tracts can waste them at will without state restriction, the state and its people may be helplessly impoverished and one great purpose of government defeated."

The report of the Commission on the natural resources of the nation contained many instances of the prodigal waste by the individual owners of resources, which might have been conserved had the more recent court decisions been rendered and enforced during the great formative period of our national life.

Touching the question of the development of oil and natural gas, it is well to notice the decision of the Indiana Court, declared constitutional by the highest courts. When the people of that state awoke to the fact that their richest mineral was being wasted, they pressed the suit which brought forth an opinion which should be made the basis of a law in every oil-producing state. In rendering that opinion, the judge said to the people of Indiana, "You cannot take the oil from the ground where nature has safely stored it, until you have provided a method of utilizing the accompanying gas or volatile oil as well. It is against public policy to waste this valuable fuel and it will not be permitted."

A few more decisions like that, and our people would begin to understand that the so-called private rights in property are not superior to the larger communal rights.

The people have been slow in learning this lesson, for they have had perfect faith that the possessors of so-called "vested interests" have the right to do as they will with their own. It is no wonder that they sat by and calmly watched the wanton waste of one of the nation's resources. For instance, there poured from a Kentucky well, for twenty years, without an attempt to shut it in, a stream of gas which for fuel purposes would have been worth \$3,000,000. Everywhere throughout Pennsylvania, and West Virginia great flambeaux have burned through many years and millions of cubic feet of gas have escaped unnoticed into the air, which if condensed into oil would be equivalent to a river flowing unchecked into the sea.

At the conference this question was raised, "Why should a few oil producers in their insane haste to get rich quickly, or to add to fortunes already swollen beyond safety, despoil the entire country of its choicest fuel,

and why should we, the people, permit without protest the existence of a strong lobby at every capital, using every means to prevent the enactment of legislation which will stop the waste, and make a greater use of the gifts of nature for the good of man?" Perhaps a people's lobby is the first step in the recovery of human rights.

The frightful waste of coal in every land is calling for a larger measure of governmental supervision. Our nation has either given away or has been robbed of most of its coal beds. The coal barons have controlled transportation, and through this means have controlled legislation. Absolute regulation of price and quantity was in their hands, and the people suffered. Coal mining under absolute private control has always been carried on with frightful waste of life and property. Through mistakes in engineering, bad roofing, the leaving of coal pillars, the mining of impure coal, fully 50 per cent of possible coal product is wasted. If, under present conditions, but little can be done by law to prevent this frightful waste of the people's heritage, still there is hope for saving the remnant of

coal and mining lands which still are under government ownership.*

New laws are in the forming, embodying new ideas which have recently been worked out by good experts, which, when put in action, will supplement our Forestry and Reclamation Acts. The government still owns much of the western coal beds, the majority of which are composed of lignite, which has been supposed to be of poorer fuel value than either anthracite or bituminous coal. The Government Experimental Station, however, has shown that when converted into gas, these coals are of greater value than eastern coals. How shall these remaining fields be worked? Shall they be sold to private owners to aid in the forming of a great western monopoly, or held and worked, or leased, by the government itself? A writer has recently pointed out that—

*By June, 1910, President Taft had withdrawn 2,594,113 acres of phosphate lands and 4,447,119 of petroleum.

The phosphate land acreage withdrawals are: Florida, 27,400; Idaho, 1,102,317; Utah, 107,545; Wyoming, 1,381,851.

Petroleum land acreage withdrawals are: Arizona, 230,400; California, 2,482,750; Colorado, 87,474; Louisiana, 314,720; New Mexico, 419,901; Oregon, 74,849; Utah, 581,564; Wyoming 255,461.

“By the most happy coincidence the value of the lignites and the value of a new method of disposing of the people’s coal came to be recognized at the same time. While Hayes of the Survey was determining the extent of the coal lands and Holmes and Parker were determining the fuel value of lignites, Leupp, the Indian Commissioner, was experimenting in a new government policy in the Indian Territory. Our coal lands were going for a mere song, but the folly of letting the Indians part with their coal at a great sacrifice when they might be made self-supporting by its proper sale was evident. Their coal was, therefore, leased—with comparatively enormous revenues to the Indian.”

This, then, may be adopted as the policy for the nation. Allowing the surface when suited for agriculture to be homesteaded, or sold for farms, but reserving the rights to the ownership of all minerals beneath the surface. If leased, the mining to be carried on under the best rules for conserving both life and fuel. If this method be followed it will bring many times as much money for the support of the state as did the old method, and with greater

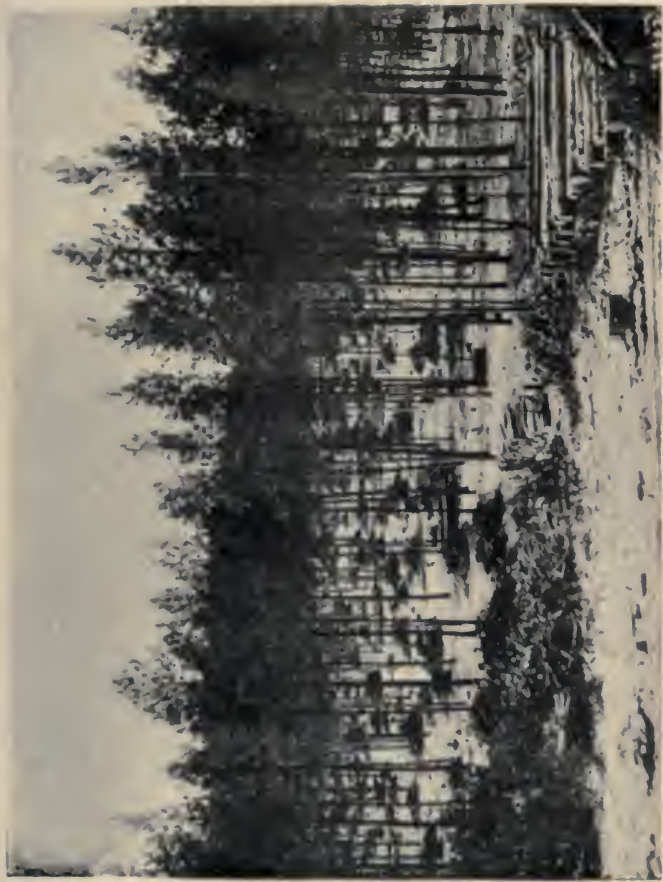
safety to life and limb. Why then should we think for a moment of continuing the old method of creating monopoly, with its consequent graft and waste of life? Let every acre of the 71,000,000 acres of western coal lands, still owned by the government, be retained for use,* or recovered when evidence is shown that corporations have obtained them through fraud, as is undoubtedly the case with vast areas of the western fields. Fortunately the engineers connected with the Geological Survey are of high grade, and are zealously seeking to protect the interests of the people, and the nation can safely trust them to work out these newer methods.

Germany has pointed out the way of saving the cheap coals, avoiding smoke in the industrial districts, and breaking the power of the coal carrying roads, by what is known as

*On July 14th, 1910, the secretary reported the following withdrawals:

"Arizona, 161,280 acres; Colorado, 6,191,161 acres; Montana, 20,208,865 acres; New Mexico, 2,894,279 acres; North Dakota, 17,828,182 acres; Oregon, 192,562 acres; South Dakota, 2,870,287 acres; Utah, 5,274,247 acres; Washington, 2,207,967 acres; Wyoming, 13,099,718 acres.

"The total of coal lands now withdrawn in the United States is, therefore, 71,518,588 acres. All the land, however, is open to



The land logged with care and protected from fire. The timber and wood keep coming

“pitmouth distribution,” and “electric canalization,” or in other words turning the coal into electricity at the mouth of the mine, and transferring this power to the factory centers.

In the nation's fight for conservation there has been no more flagrant betrayal of the will of the people than when the party leaders, headed by the Speaker of the House, stood for the few as against the many and brought about the defeat of the Appalachian legislation. The welfare of the people was clearly ignored because of the selfish scheming of special interests whose private gain, it was fancied, might in some way be injured, or because of a feeling that “states' rights” was being put in jeopardy.

From the Fifty-Sixth Congress to the present, the plan to set aside the Appalachian forests has been urged at every session. The arguments are conclusive, inasmuch as they agricultural entry, with a limited surface patented under the terms of the order of withdrawal and in accordance with the recent enactment providing for agricultural surface entries on withdrawn or classified coal lands.

“Already 10,210,082 acres of coal land, in part included in the earlier withdrawals, have been classified and appraised by the Geological Survey prior to July 1, 1910, and restored to appropriate entry.”

show the fearful destruction of timber, the consequent floods and soil erosion, and the subsequent drying up of the rivers, entailing a great loss to all the states concerned.

The first appeal was for the government to purchase 5,000,000 acres in the southern Appalachian, but that was soon merged in a bill including 600,000 in the White Mountains. Henceforth this bill knew neither north nor south, but was pressed by clubs and associations, governors of all the interested states, the Forestry Bureau, the Secretary of Agriculture, the President of the United States, together with prominent men and women throughout the land. The demand was nation wide, yet the various bills were defeated time and again, not because of argument, but because of the power of two or three men in Congress who were able to nullify the expressed will of the people, and the majority of the members of Congress. But the people are aroused and the day is nearing when they will be more directly represented in both House and Senate, as well as in the State Legislature and Common Council.

To conserve the waters of the nation for

irrigation, power, and navigation is a movement worthy of the most constructive statesmanship ever applied to any national subject. To compass these ends, the nation's waterways must be improved and developed before it is too late, and their possession has passed forever into the hands of corporate interests.

The control of the rivers for navigation has always been considered one of the functions of the national government, but the right of control of the smaller streams as sources of the rivers has often been a contention between the state and the nation. The correct rule was recently laid down by the Supreme Court of the United States in the Rio Grande case, and that is, that over the portion of a stream which is above the head of navigation, if it be the headwaters of a navigable stream, on account of its effect upon the navigability of that portion of the stream lower down, absolute control should be exercised by the federal government.

This decision gives larger scope to the nationalization of the conservation of natural resources, and makes it possible to accomplish far reaching results. In order to keep the

channels open to navigation, it is necessary to prevent the disastrous floods which cause a loss to the United States of \$100,000,000 annually—one billion tons of soil being washed down the rivers to form bars obstructive to navigation. The Mississippi River carries through its channel annually something like 400,000,000 tons of sediment—more dirt than will come out of the Panama Canal. Careful data regarding the rivers and harbors of the country have been made, first by the various departments, and then systematized by the Inland Waterways Commission, and later by the Conservation Commission. A definite plan of action is also being formed, and powerful pressure is being brought to bear on Congress to pass the necessary appropriation. The plan proposed is as follows:

- (1) A deep waterway from the Gulf of Mexico to the Great Lakes.
- (2) A deep and continuous inner passage along the Atlantic Coast from New England to Florida.
- (3) The improvement of the Ohio for navigation, including the building of reservoirs and the protection of the forests along the headwaters.

- (4) The improvement and canalization of the Missouri and upper Mississippi.
- (5) An inner passage from Florida to the Rio Grande.
- (6) Improvements in the Columbia River and Puget Sound and in the San Joaquin and Sacramento and Feather Rivers in California.

The following bill was introduced, authorizing the issuance of bonds for the improvement of waterways:

To borrow on the credit of the United States from time to time as the proceeds may be required to defray expenditures hereafter to be authorized by Congress for waterway improvements in the United States and Territories (such proceeds when received to be used only for the purpose of meeting such expenditures) the sum of \$500,000,000, or so much thereof as may be necessary, and not to exceed \$50,000,000 in any one fiscal year.

This was on the recommendation of President Roosevelt who urged that funds should be provided from current revenues if it is deemed wise, otherwise from the sale of bonds. The essential thing is that the work should go

forward under the best possible plan and with the least possible delay. The time for playing with our waterways is past. The country demands results.

It seems possible that the first work to be undertaken will be the Lakes to the Gulf canal, connecting Lake Michigan with the Mississippi River, as President Taft is committed to the support of this project.

The opening up of the waterways will have a great influence upon transportation rates, coming as they will in direct competition with the railroads. It is said* that half a billion spent on waterways would furnish the means of carrying more commerce than five billions spent on railroads, and that these waterways could be operated at one-sixth the railroad rate. And besides, private ownership and monopoly in transportation would be effectually shut out. It is true that quick relief cannot be obtained by waterways improvements, because of the magnitude of the undertakings, but in pushing them forward we will be providing for the permanent advantage of our children and of generations yet unborn.

*From speech of Hon. J. E. Ransdell of Louisiana.

Our modern industrial development rests upon the two important physical bases—transportation and power. When the electric and steam railways are under government control, or publicly owned, and operated, as they are in many other countries, and the waterways have also been fully developed, then and not until then will the railway kings, who now control all transportation, be forced to relax their grip upon the very life of the nation.

But this is pre-eminently an age, marked by the wonderful development of physical power. The early settlements in America were determined by their accessibility to sources of water power on rivers and streams, on which must be built the sawmill and the gristmill, but steam has made it possible to build the mill far away from the water on prairie or hilltop, and because of this we have grown to be a great industrial nation.

The later application of electricity as power, with its long distance transmission, is slowly supplanting the mill wheel and the steam engine, and as a consequence sources of electricity have become the most valuable assets

in all the land. The waterways of the land can furnish this new power; and that is the reason why we should arouse ourselves in time to ward off the impending monopoly in water power sites, for the great captains of industry well know that "the waters of our streams must furnish the 'white coal' of the future, and electrically turn the wheels of commerce in smokeless economy."*

It is believed by many engineers that within ten years a thousand miles may not be the limit of sending the power generated by the distant mountain stream, power which will light our cities, run our railways and factories, and do much of the hard work about the farm and home. Electricity from Niagara Falls now turns the wheels in Buffalo, Roches-

*In a recent open letter, Gifford Pinchot made the following statement concerning the permit now used by the Forest Service in granting all water power concessions in the national forests. Some such form of permit should be used in the future to cover all such concessions whether in the national forests or upon other public lands:

"I call your attention to the fact that this permit requires that construction be begun and completed within a reasonable time fixed in accordance with engineering conditions, to prevent the speculative holding of undeveloped sites; that a small annual mileage and acreage charge be paid during construction; that a reasonable annual charge in proportion to the electrical output, a



Digging canals to carry mountain waters to distant valleys

ter and Syracuse, and a hundred villages beside, binding them to the great corporations, and making the people more dependent for life and happiness upon them than upon any other of the great monopolies in transportation or food supplies. Thirty millions of horsepower are now available from the waters of the United States, and by building reservoirs

nominal amount at the outset and gradually increasing by moderate increments in successive five-year periods, be paid after operation begins, with reasonable deductions on account of other than national forest land used by the plant or forming part of the watershed, and in order to encourage the building of storage reservoirs on account of water storage by the permittee; that timber cut or destroyed in construction be paid for at a reasonable stipulated price; that the plant be operated continuously up to a reasonable stipulated fraction of its full capacity, in order to prevent artificial scarcity and the resulting high prices to consumers; and that power be sold to the United States, when requested, at as low a price as to any other consumer.

"It is also required that the permit shall not be transferred since the transfer of government contracts is expressly prohibited by statute; that the permittee must use reasonable precautions to protect the forest by fire fighting, etc.; that the permit shall terminate at the end of fifty years, but may then be renewed on such conditions as the government shall then fix, but that in fixing them neither the permit itself nor the franchises, stock or bonds of that permittee shall be considered, but only the actual value at that time of physical works constructed under the permit; this in order that future generations may not be burdened to pay dividends on inflated securities.

"These permits are issued under the authority of a specific statute (Act February 15, 1901, 31 Stat. 790)."

they can be increased to one hundred and fifty millions. This represents the equivalent of all our coal.

Place this statement by the side of the fact that a small group of "interests" control one third of the present water power production, and have a strong lobby in Congress and in state legislation, pushing "grab bills," hoping that they may be able to secure the greater part of the remaining power sites before the people awaken, thus securing the ownership of potential water powers for a fraction of their real value. If this mighty robbery of a nation's resources is consummated, it will destroy forever the people's hope of cheap living, and will place in the hands of monopolies, resources which, if controlled by the government, might be used for public income and for the cost of executive control.

In an appeal to President Taft, a magazine writer urges him to curb the growing power of a monopoly which threatens to become a greater trust than the Standard Oil. He declares it "a new monopoly, more terrible than has ever threatened the country, paying nothing, demanding all. Its members have gone to

Congress and borne away perpetual franchises to the greatest of our last remaining resources. Only the determined stand of President Roosevelt and Forester Gifford Pinchot has so far come between them and victory.”*

President Roosevelt's veto of the Rainy River Dam Bill and his veto of the bill passed by Congress, June 15, 1909, which authorized the applicant to construct a dam across the James River in Missouri, and divert a part of its waters through a tunnel for electric power, are certainly in the right direction. He gave as his reason for the vetoes that they gave the grantees valuable privileges which by their very nature are monopolistic, and do not contain the condition essential to the promotion of public interest. In regard to the Desplaines River case, President Roosevelt took a forward stand when he said:

“The great corporations are acting with foresight, singleness of purpose and vigor to control the water powers of the country. They pay no attention to state boundaries and are not interested in the constitutional

*Water Power Expert, John L. Mathews, in *Hampton's Magazine*.

law affecting navigable streams. It is significant that they are opposing the control of water power on the Desplaines River by the State of Illinois with equal vigor and like arguments to those with which they oppose the national government pursuing the policy I advocate. Their attitude is the same with reference to their projects upon the mountain streams of the West, where the jurisdiction of the federal government as the owner of the public lands and national forests is not open to question.

“The people of the country are threatened by a monopoly far more powerful, because in far closer touch with their domestic and industrial life, than anything known to our experience. A single generation will see the exhaustion of our natural resources of oil and gas, and such a rise in the price of coal, as will make the price of electrically transmitted water power a controlling factor in transportation, in manufacturing and in household lighting and heating.

“No grant of this kind should be made except as it provides for a fee to secure title to the people and for termination of the grant or

privilege at a definite time. I will sign no bill granting a privilege of this character which does not contain the substance of these conditions. I consider myself bound, as far as exercise of my executive power will allow, to do for the people, in prevention of monopoly of their resources, what I believe they would do for themselves, if they were in a position to act.”*

The right time to control a monopoly is before it is created. When it is once realized that the public ownership or control of the great water power sites is not only essential to the possession by the people of means for cheap power, light, and heat, but also for protection from disastrous floods, with their consequent soil erosion, and the keeping of the rivers navigable, then it will be seen that now is the time to determine that there shall be no further private ownership of public water power.

In the old day of unrestricted individualism,

*To date the areas involved in the power sites withdrawn are as follows: Arizona, 107,550 acres; California, 47,819; Colorado, 201,549; Idaho, 230,971; Montana, 122,515; Nevada, 14,501; New Mexico, 14,536; Oregon, 176,721; Washington, 55,439; Wyoming, 103,396; Utah, 379,912.

this sentiment would not have been accepted by any except those thinkers who were far ahead of their time, but now we are thinking continentally, speaking in terms of the nation, taking a national view; and are regarding the nation as a social and economic entity, every part of which must be developed in the interest of every other part. Conservation and development have come to be familiar words, and the general public is demanding with no uncertain voice that this work shall go on with increasing momentum.

But why not give to this principle a wider application? If the nation must initiate, carry through, and pay for these great public improvements, why should it transfer the sale, or chief benefits of such improvements to private individuals and corporations? If the public must do the work and pay the bills, should it not share in the fruits? Other nations have followed this method with great success—why should this nation fall behind? In the future, governments must at least earn their keep to justify their existence. The opponents of the plan of developing for the public good that which belongs rightly to the

public, designate it as "paternalism"; yet it should rather be called "fraternalism," for the essential ideal in a democracy is that of a group of brothers who have gone into partnership, working together that even the weakest may have his full share of the common inheritance. To fulfill its destiny, this government must become in fact what it is in name—"A government of the people, for the people and by the people."



CHAPTER VI

Agriculture's Opportunity

That this may become a nation without extremes of poverty or riches is the dream of many social reformers. A widespread distribution of wealth is without doubt desirable both as a means of abolishing poverty with its consequent misery and crime, and as giving opportunity for more general education, culture, and refinement of home life. History has shown that a competency for every home-builder is to be desired, while swollen fortunes are a menace to the individual and the nation.

No department of our government service is more closely related to the production and distribution of wealth than the Agricultural Department; and to Secretary Wilson, as to no other man in the nation, can the great results achieved be attributed. Through his zealous labors, and well developed plans, the farmer has been a larger recipient of the government's aid than any other of the nation's toilers. The gigantic strides which have been

made toward the common good in all agricultural regions afford us hope that the time is not far distant when as much thought and effort will be put forth to better conditions in industrial districts, and in the neglected corners where people are left to suffer with no one to help them in their time of need.

The present is far removed from the old *laissez faire* idea of government. In the earlier days every man claimed the liberty to go without good roads; to keep his children from school; to pollute the streams and poison his neighbors; to carry a gun; or to sell liquor to whom he pleased. In the interest of the common good, these rights are now restricted and co-operation is taking the place of the competition of a war-like age.

Under the direction of the Department of Agriculture, the farmer has achieved enormous successes in the line of economic co-operation, even where the people in other occupations have failed. According to the report of the Secretary of Agriculture, more than half of the six million farmers in the United States are now represented in this co-operative movement. In his summary of

prominent objects of farmers' co-operation, Secretary Wilson places first that of insurance, with 2,000 associations and over 2,000,000 members. Co-operative creameries and cheese factories have a very large membership. Co-operation in selling has reached every part of the nation. Fruit-growers, nut-and-berry-growers, vegetable-growers, live stock men, and producers of all sorts of grain, poultry, eggs and milk have united for self-protection and mutual interest. Co-operative buying has also become popular, there being three hundred and fifty stores owned mostly by groups of farmers, granges, and farmers' clubs, all of which buy all sorts of goods on the discount plan.*

Warehousing for storage of corn, cotton, and wheat is conducted with great success. Everywhere throughout the farming regions may be found co-operative telephone service, the cost of both equipment and service being kept at the lowest figure because of the co-operative

*The spirit of co-operation has reached the farmers and many organizations are now national in their scope. During November, 1909, the American Society of Equity held its national convention in Indianapolis; the National Grange, Patrons of Husbandry, met in Des Moines, the National Farm Land Congress in Chicago and The Farmers' Union held its national convention at Raleigh, N. C.

feature. Through this team method of working, which does away with the profit of the middlemen, the farmers are coming out of poverty into comfort and wealth. The farmers of the mortgage ridden Kansas of former days have now filled the banks to overflowing, and have changed the sod houses into beautiful homes in the midst of fruit orchards and shade trees.

During the past year the value of the farm products of this country reached the vast amount of \$8,760,000,000—enough to build the Panama Canal, dredge our navigable rivers, irrigate our desert lands, dig our necessary canals, and do most of the things of this kind worth doing.* This amount is four times the value of the oil and precious metals produced in this country. The story of what this department is doing for the farmer reads like a chapter of New Zealand's effort for the

*In the report of the Agricultural Department for 1909, Secretary Wilson says: "Eleven years of agriculture, beginning with a production of \$4,417,000,000 and ending with \$8,760,000,000! A sum \$70,000,000,000 for the period! It has paid off mortgages, it has established banks, it has made better homes, it has helped to make the farmer a citizen of the world, and it has provided him with means for improving his soil and making it more productive."

common good. The American farmer has thousands of expert investigators working for him, teaching him, and demonstrating to him how he may do things in the right way.

The Department offers the farmer a choice of new crops, furnishes him with seed and fertilizer free of charge, shows him how to breed both plants and animals. In short, there is no part of country life that this wonderful secretary and his trained assistants do not touch in a way which produces astonishing results.

It is interesting to trace the evolution of the new farmer. Once agriculture was looked upon as constituting the lowest stratum of the industrial and social life of the nation. The tiller of the soil was a serf, getting a precarious living, while his overlord used the greater part of the land as a game preserve. The animals and birds were protected. To kill a hare was a capital offence; so was the very act of setting traps and nets by a serf. Later when freed from vassalage to the soil, the agriculturist with his rude implements of husbandry, was unable to rise even to the rank of the most poorly paid industrial laborers.

The brightest of the farmer boys would not remain upon the land but sought the city with its greater opportunities. But thanks to a nation whose best thought was given to the development of agriculture, and to the enrichment of the life of the farmer, a great change has taken place, and now the farmer is reaping the results of the small army of government experts who have been laboring in his behalf. Farm life for many is still hard. Failure of crops, lack of water, poorness of soil, may contribute to occasional financial distress. Lack of neighborliness, and distance from school still send many sons and daughters to the busy centers; yet for the greater number of dwellers in the country, a new day has dawned. Good roads, trolley lines, the telephone, rural free delivery, and the daily paper help to urbanize the country. The boys returning from the agricultural colleges now "farm with brains"; and the products of the soil are increasing in amount and quality. The movement back to the land needs no artificial stimulus. The present methods of farming produce on an average about \$500 for every family in the United States; and so

rapid is the annual rate of increase, because of scientific farming, that while we are led to believe that within two generations we may have 200,000,000 people in these United States in place of the present eighty millions, still we shall be abundantly able to care for all, and provide them with increasing wealth and comfort, for are not the new leaders of agriculture making two blades of grass grow where one grew before, and thus doubling the value of farm products?

Let us follow somewhat in detail the work of Secretary Wilson and his corps of experts, in their efforts to raise the standard of plant and animal life. With the knowledge before them of the wonderful results of breeding among domestic animals, Mr. Willet M. Hays, assistant secretary of the Department, believed that equal results could be obtained in the breeding of better strains in plant life. In this field, Mr. Luther Burbank had already been eminently successful. It is over seventeen years since Mr. Hays began this work; and by using the vast resources of the government, and securing the co-operation of the



James Wilson
Secretary of Agriculture

farmers, he has greatly increased the yield in the improved strains which he has been able to produce. During this time breeding has passed the haphazard stage, and has become thoroughly scientific. By applying scientific methods, agricultural experts have created annually millions of dollars, which have become a substantial addition to the farmer's bank account. In one state alone, at an expense of \$20,000 annually, a half dozen varieties of newly bred field crops, when marketed added \$2,000,000 to the amount of the same crops as raised in former years. The improvements sought for are—increase in productivity, immunity to disease, improvement in fiber, taste, and food-value; also in size, shape, and color. The methods used are hybridization and seed selection.

This work necessarily runs through many years; for from large broods of the seeds of single mother plants, individual plants which show nearest to the desired traits must be selected and their seeds planted; a yearly selection being made until the desired change is fixed.

For twoscore years the work of improving

the corn crop has been in progress, chiefly through the selection of the finest seed, with the result that an addition has been made to the size of the ears, the number and fullness of the grains, and special varieties have been adapted to the various climates and soils of the various sections of the land. Corn breeding is not only taught in college and short course farmers' schools, but the results are exhibited in fairs and on "corn-gospel" trains.

Because of the value of corn-breeding, corn-breeders' associations exist in all the corn states, and seed corn is grown largely as a separate crop. New varieties are being constantly originated, older ones improved, and new strains developed. The annual value of this great crop is now far above a billion dollars; and it would take only eight such crops to pay for duplicating every mile of steam railroads in the United States, together with all the terminals, rolling stock and all other properties.

The Florida orange has been hybridized with the cold-resistant orange, thus greatly increasing its hardiness. In Colorado a cantaloupe has been bred that will resist the rust fungus. From a lengthy list of improvements

in plants and fruits reported by the government, a few selected specimens may be quoted as follows:

“Native Dakota plums and sand cherries have been hybridized with other stone fruits from Europe and Asia to combine the hardiness of the native fruits with the size and quality, to some extent at least, of the choice cultivated fruits from abroad. In New Jersey practically all of the important vegetables have been subjected to hybridizing and breeding, and many new varieties with desirable qualities have been produced and disseminated.

“Good varieties of wheat have been originated by breeding. The Minnesota station originated numerous varieties, two of which have spread over half a million acres, and yield from one to three bushels more per acre than the varieties formerly grown. The winter-wheat belt has been extended farther and farther north by sowing adapted varieties until this wheat is now grown in regions which had before been regarded as incapable of growing it. Winter character has been added to the spring wheats of the Pacific Coast and new hybrids of these wheats are now grown there.”

This same law of selection has played a large part in the successful introduction into Alaska of many cold-resisting fruits, grains, and vegetables. Indeed, by this method of fitting the plants to the soil and climate, vast acreages have everywhere been added to the agricultural areas of the nation.

If, by careful scientific breeding, fifteen per cent and more of increase could be added each year to the four billion dollars worth of farm crops, and a similar amount to the three billion dollars worth of farm animals, that would mean additional profits of one billion dollars annually, and the farmers thus be made rich at cost of a very small initial outlay.

Working through the state stations and agricultural colleges, the Department has begun to create new strains of farm animals, as, for instance, "carriage horses in Colorado; cattle for beef production under southern conditions in Alabama; a cross between the horse and the zebra in Maryland; the re-establishment of the Morgan breed of horses in Vermont; sheep especially suited to range conditions in Wyoming; a breed of milking Shorthorn cattle in Minnesota; draft horses in Iowa; improved Holstein cattle in North

Dakota; and a breed of hens for high egg production in Maine."

To one imbued with the older ideas of the functions of government, it would seem passing strange that this nation should undertake the business of horse-breeding, but it is a fact that the government is raising horses on breeding farms in Colorado and Vermont, in order to check the evident deterioration, and establish types that would be most serviceable and restore the former sturdy qualities of the American horse. When all the people work together for the good of all, nothing is too small or insignificant, if in doing it better conditions of living are brought about.

In addition to improving the strain of farm animals, the Bureau of Animal Industry has done much to stamp out the diseases of animals, epidemic and otherwise, thus protecting both man and beast. (This might well be called an animal bureau of prophylaxis.) Secretary Wilson declares that important discoveries worth many millions of dollars to the farmers of the country have been made touching the causes and cures of animal diseases. The cause of hog cholera, for example, has

been discovered, a cholera serum prepared, and its use has demonstrated that it is a practical, trustworthy, and cheap preventive of this disease. By its use, millions of dollars have been saved annually.

The great need of freeing herds of cattle from tuberculosis led the government to undertake the free distribution of tuberculin for testing bovine tuberculosis. During last year, 213,000 doses of tuberculin and 52,000 of mullein were sent out to the health officers for use in testing dairy cattle and horses. All imported cattle are carefully inspected. A vaccine for the prevention of blackleg in cattle is manufactured and distributed free to the cattle raisers of the United States, 1,154,100 doses being sent out during 1908. Sheep scab in the ranges of the west has been nearly eradicated by the government in co-operation with the states.

The injection of sterilized atmospheric air into the udder of dairy cows affected with milk fever, invariably results in cure, and thus prevents the enormous loss which has resulted from this disease. Since the discovery that the cattle tick was the cause of Texas fever, large regions have been freed from this insect

and the cattle fever prevented. Millions of dollars have also been saved by the energetic work of the government in stamping out the foot and mouth disease in cattle.

Most careful meat inspection has been undertaken in all abattoirs making interstate shipments; and so extensive is the annual inspection of animals that if placed in single file they would form a line reaching four times around the world.

The claim of the Department that insect pests annually consume and destroy in the United States values beyond estimate is readily accepted when it is known that the "vegetable bugs" alone lay upon the farmer an annual tax greater than that involved in the maintenance of the entire United States government. By waging a relentless and increasing war against such pests, the Bureau of Entomology saves the farmer in some single years from \$300,000,000 to \$400,000,000.

The loss by injurious mammals annually is in excess of \$100,000,000, while the insects of all kinds make a tax of about one billion dollars. The incidental losses greatly increase this amount; as for instance, in the case of the

Hessian fly, which in some years has cut the wheat crop to pieces, causing loss to flour mills and railroads, throwing men out of work, and affecting nearly every branch of industry. To meet this great loss, the government, receiving reports in advance of the coming of the Hessian fly, begins at once in its laboratories the breeding of billions of parasites, which are turned loose in the fields, to make war on the fly, giving it no quarter until it is routed, or completely destroyed.

A recent magazine reports the following conversation with the chief of the Bureau of Entomology: "He's a welcome little stranger," said Dr. L. O. Howard, as he held a tiny bottle before my eyes and handed over a microscope. "That speck is a distinguished arrival from Europe. I sent a man over for him two weeks ago, and though the cost of getting him here may seem disproportionate to his size (he was about as big as the head of a pin) he'll pay his passage by saving the elm trees of the country. That is the egg parasite of the elm leaf beetle. The magnificent elms of the country, the splendid shade trees of New England especially, have been attacked savagely of late by the

beetle which eats their leaves and destroys them. This little fellow can be depended upon to give increasing battle to the beetles. We shall propagate these parasites by millions, and when the elm leaf beetle starts his feast he will find opposed to him a relentless army of enemies bent on his destruction."

A similar story is told of the San Jose scale, a parasite which was fast destroying the fruit trees of the Pacific Coast. In addition to spraying the trees, it was desirable to find a natural enemy to the scale. The original home of the parasite was found to be in China, and dwelling with it was also found its deadly enemy, a species of lady bug. A federal employee was at once sent to China to bring back the mother lady-bugs. On the trip all died save one, but this one laid some thousands of eggs and the brood when hatched became the forerunner of the countless hosts of lady-bugs which are seen every year swarming in the trees of the Pacific coast during the fruit season, rapidly destroying the scale in every tree.

It was found impossible to raise the Smyrna fig in this country until the fig caprifying

insect was imported, and by its help the Smyrna fig growing and packing industry has been strongly established. The importation of the natural enemies of the sugar cane leaf-hopper have saved the growers from a great burden of loss. The destructive grain aphid has found its enemy in a four winged fly which lays its eggs in the body of the aphid. Were it not for the tachinid flies, the army worm would become a menace as great as the invasion of a foreign enemy.

The gypsy moth, an accidental importation from Europe in 1889, steadily advanced through New England, until the fruit and shade-trees were damaged and the loss had reached the millions. The Bureau sought the world over for destructive parasites, and when found, propagated and liberated them in such numbers that there is now hope for the final extermination of both the gypsy and browntail moth.

The search for the enemy of the destructive cottonball weevil is still going on with much success. Many different kinds of parasites have been introduced. A mechanical appa-

ratus for the control of the weevil has been put at the use of the public; and a "rapid fire" cotton has been planted which matures, is picked, and ginned before the weevil reaches maturity. In these ways the calamity which threatened the Southern planters is being averted.

The danger from importation of insect pests, hidden in fruits and packing boxes is so great that the government is always on the watch to guard against it; and on the other hand a world-wide search for the enemies of existing parasites is ever in progress; and in this search the departments of all nations are co-operating. Not only is the effort made to keep out insect pests, but all birds, beasts, and reptiles which may prove dangerous or may become a nuisance are debarred from importation. The proscribed list includes poisonous snakes, the English starling, rabbits, the flying fox, and the quarrelsome mongoose of India. Especial watch is kept against the mongoose, which kills birds and poultry and makes of itself an unbearable nuisance.

The depredations in the national forests by insects is so great that the Department gives

constant attention to the destruction of the many moths, beetles and flies, native or imported, which are in any way hurtful to the trees.

The warfare against noxious mammals is ceaseless and expensive, forming a great tax on agriculturists. Efforts to destroy these animals by traps, poisons, and gases need to be supplemented by inoculating certain ones with virus, which will cause contagious disease to spread among them and thus destroy whole colonies at once. Among the most destructive of the mammals are field mice, rabbits, gophers and rats. The circulars sent forth to stockmen, giving the methods of killing wolves and coyotes have been the means of saving millions of dollars. A few of these mammals are very beneficial and the Department advises the sparing of bats, skunks, weasels, badgers and foxes, that they may aid in destroying the more harmful animals.

The Agricultural Department is also giving great attention to soil analysis, for because of the wasteful methods of farming, many farms have depreciated in value, and have been abandoned; and through lack of knowl-

edge, many farmers have wasted much of the fertilizer used on worn out land. It is another instance where it is well to "farm with brains." In addition to the soil survey, the government co-operates with many states in conducting demonstration farms where the farmers may learn what can be done on the different kinds of soil; what are the proper fertilizers to use, if any, and what varieties and classes of crops to grow on their respective farms.

Our agricultural lands are impoverished by single cropping, and by failure to use proper fertilizers. It is easy to remedy the first, but the second requires careful thought and scientific knowledge, which knowledge the government stands ready to give. Constant cropping depletes the soil by extracting from it the nitrogen, potassium and phosphorus. These plant foods must be put back into the soil if continuous farming is to be productive.

The nitrogen is quite easily obtained for the air itself is a storehouse of it. Heretofore most of the nitrogen salts have come from mines of Chile, but a recent electrical discovery makes it possible to condense the atmospheric nitrogen into a product which can

scarcely be distinguished from the imported article. But another and a cheaper method is at hand. All leguminous plants, by the aid of bacteria, draw from the air large quantities of nitrogen which is deposited in nodules on the roots. These crops plowed under furnish both humus and nitrogen to the soil. The government sends out bacteria with which to inoculate the clover, cow pea, or bean and thus develop this part of the plant food. About 20,000 cultures were distributed during one year.

Potash has heretofore come mostly from the German mines, but it can readily be obtained in inexhaustible quantities by crushing the igneous rocks which carry a percentage of potassium.

With regard to the third item, namely, that of phosphorus, it is necessary to conserve the supply, for it is limited. The earliest source of phosphorus was found in the South American Islands. More recently phosphate rock was discovered in the southern states, but this was largely monopolized and much of the product was shipped abroad. Since then large deposits have been discovered in Wyom-

ing, Utah and Idaho. At the request of President Roosevelt, these phosphorus bearing lands were withdrawn from entry and an effort was made to have Congress adopt the policy of leasing them with a proviso in each lease that none of the products should be exported; thus holding for all time this last source of phosphate for the use of our farmers. This owning and leasing is one step towards the larger policy of owning and operating.

In taking a survey of this growing nation, and foreseeing the certainty of the population crowding the old centers and the great cities, we have rejoiced in the possible outlet on the lands reclaimed by irrigation and from the drained swamps, but even these would not furnish sufficient agricultural area for all the people who might wish to own farms. The Agricultural Department tells us that millions of people more can build happy homes on the arid lands, and raise abundant crops by the system of "dry farming." This method was common among the ancient Egyptians and the Aztecs, but it was one of the lost arts until the experts, local and national, began a series of experiments, which proved so successful,

that now it is claimed that 200,000,000 acres of available lands, once included in the Great American Desert, await development by this method. Think of the picture, you who have travelled over the great plains, of the vast desert stretches of the far west transformed into delightful home-sites. Secretary Wilson maintains that we have no useless acres. "We shall make them all productive," he is quoted as saying; and he adds, "We have agricultural explorers in every far corner of the world; and they are finding crops which have become so acclimated to dry conditions, similar to our own in the West, that we shall in time have plants thriving upon all our so-called arid lands. We shall cover this arid area with plants of various sorts which will yield hundreds of millions of tons of additional forage and grain for Western flocks and herds. Our farmers will grow these upon land now considered practically worthless."

In order to test the practical workings of dry farming, so that the people might not be enticed into the desert only to find failure, the government several years ago established eleven stations in the Great Plains region in Montana,



Future homesites for the people

North and South Dakota, Nebraska, Kansas, Colorado and Texas, where scientific methods were carefully worked out, assuring success to those who used them intelligently. As soon as these facts were given to the public, settlers began to pour in from far and near, until the movement had grown to such proportions that it warranted the calling of the first Trans-Missouri Dry Farming Congress in Denver. This was attended by 300 representatives. The second Congress convened in Salt Lake in 1908, with 650 delegates, and the third in Cheyenne, Wyoming, in February, 1909, with nearly one thousand in attendance. These prepared the way for the still larger congress held in Billings, Montana, October, 1909.

Much interest has been aroused by these successive congresses. As a result of them, one railroad has put on a special train, in which will be carried samples of farm products, the experts in charge to give instructions to the farmers at every station. The membership in the Central Congress has now reached many thousands, and it vies with the older body—the National Irrigation Congress—which in-

vited 10,000 people to be present at its last meeting at Spokane.

Dry farming is a success, if a suitable cultural system is used, and all of the moisture is conserved. It involves the utilization of the rains and snows of the non-productive seasons, for the purpose of agriculture in the summer, when there are no rains at all. With twelve to fifteen inches of rainfall, properly conserved, a crop may be produced; and there is little of the desert that does not receive that amount.

The dry farming system is based on the principle that the moisture falling in snow and rain will sink into the earth, if the soil is loosened with deep subsoil plowing in the summer, with furrows turned at right angles to the prevailing winds of winter, in order that the snow may be caught. The moisture during the wet months sinks to the depth of eight feet, then the surface is sealed over with harrows, so that the capillary ducts, by which the moisture works its way to the surface, are broken, and the land covered by a stirred surface acting like a blanket. "Plow, plow, plow!" is the cry of the dry farmer. This prevents rapid evaporation in the hot weather,

and makes it possible for plant life to exist upon the water which it draws in through the roots from the stored moisture far beneath. There must of necessity be good soil as a basis— "Only irrigation can conquer sand."

The annual change of crops, and seed selection, are vital to success in the dry regions. Seeds are selected that have drought resistant power, being chosen from plants that have for centuries grown in arid regions. This new process has had a great effect on land values, some of the desert lands, from being a drug in the market at 50 cents an acre, when brought under cultivation command \$25.00 per acre.

If the plant breeder has been able to make two ears of corn grow where one grew before; and the irrigationist has caused two blades of grass to grow, where one grew before, the dry farmer has caused profitable crops to grow where nothing of value ever grew before. Farming in the arid region has been made possible not only because of the local experiments, and the working out of methods of scientific culture, but also because the government has kept in the field a small army of explorers, seeking for new crops which will

meet any condition of soil and climate found in America or in the island possessions. The policy of the government has been to "send out and get the best in the world; then educate the farmers in its culture and the public in its use; and after that grow it here at home with scientific zeal." A writer has recently summarized the efforts to bring fruits and vegetables from other lands, before the new agriculture made demands for new crops, as follows:

"Before the sixties the tomato was a curio from Peru—a 'poison apple'—it was called; now it requires 600,000 acres to produce the crop. In the fifties, the Franciscan Fathers brought the alfalfa from Chile, whence it came from Asia Minor; now the yearly crop covers 2,000,000 acres. They also imported the olive, which now covers a thousand orchards. Here are some other varieties: Siberian crabapple and Vladimir cherry from Russia; horse-radish from Austria; potato from Columbia and Peru; rhubarb from Central Asia; asparagus from England and cherry from the south of Europe."

Not content with the more or less accidental

discovery of new crops, the Agricultural Department has organized a corps of explorers to secure seeds and cuttings and to gather exhaustive data as to the methods of culture and to secure information which will help to make the transplanted crop a success. "These explorers have invaded Indian jungles; endured the hardships of Siberian steppes; sweltered in the burning heat of the Sahara, and risked their lives in the plague districts of Bombay. They have touched at every continent and penetrated many lands, and the fruits of their daring endeavors are on a thousand American farms."

The Bureau of Plant Industry has thus been able to add many millions to the value of farm produce and at a comparatively small expense. For instance—it cost \$2,000 to introduce sorghum, a crop now worth \$40,000,000 a year. Then look at the durum wheat from Russia, unknown in our markets till 1900! It is a "dry land" grain for the semi-arid western plains that will flourish where another wheat would starve. To get it, test and distribute it, cost us perhaps \$10,000, while the crop's annual value is at least \$10,000,000! Similar

increase came with the introduction of the navel orange; Japanese rice and bamboo; the Corsican citron; the Indian mango; Bohemian horse-radish; Malay mangosteen; Mexican sisal; Spanish almonds; French prunes; West Indian cassava; hardy Finnish oats and turnips for Alaska's short summers; Chinese mustard and Egyptian cotton.

Dates for the desert, and several thousand rare, delicious new foods, which are now either being tested on the demonstration farms or are growing on vast areas and filling the produce markets of every city have been brought to this land by these explorers. If this good work goes on for a decade, it is safe to say that there will not be an edible fruit or vegetable, a forage crop, a medicinal plant or a rare flower grown anywhere in the world that will not be discovered and brought hither by the explorers and started in its new habitat somewhere in the vast reaches of this new land.

Of the work of seed and plant introduction, Mr. Fairchild, of the Department, says: "I feel that there is no government expenditure which more directly affects the wealth producing power of the country than this one.

It means that the American farmer is no longer tied to the few crops that his forefathers knew. It gives him the material with which to experiment. He ceases to be a plodder along old lines and becomes an intelligent investigator. He is emancipated from the one crop idea. And the whole world is coming to his aid."

That the work of distribution of seeds and cuttings is greatly appreciated is shown in the request for 6,400,000 packages of vegetable seeds and 800,000 packages of flower seeds, freely sent out through congressmen and through the Department itself. For the encouragement of willow culture for baskets, the Department is sending willow cuttings to those who will plant and cultivate them.

The government is not satisfied with increasing the quality and value of the farm crops grown on land; it is also giving great attention to the scientific farming of the waters. The Fisheries Commission is cultivating the ocean floor that it may bring forth greater crops, and that the natural resources of the deep which were through greed being rapidly depleted may be conserved for

future generations. Fish laws have been passed, making a closed season for many kinds of fish (including shell-fish) as is done in the case of rapidly disappearing animals. They have gone still further and now, "every specimen swimming the oceans, rivers or lakes, which after investigation has proved of benefit to man, will be saved through the ceaseless activity of the national Fisheries Commission, which has taken up the giant task of putting back under the waves each year as many fish as thoughtless man takes out, and which in addition aims to discover new food fish and make them plentiful; to bring to American waters species hitherto unknown in this country; to transplant the Atlantic fish to the Pacific and those of the Pacific to the Atlantic, and to develop toothsome dainties for man's appetite, and, through a constant increase in the quantities, to put them within monetary reach of all."

Nor has the government overlooked the protection and propagation of wild birds, as an aid to the farmer in destroying insects, and as a means of enriching the life of the country-side through the music of the song,

birds. The Biological Survey in its report on birds pleads for their protection, for it claims that when birds are permitted to labor undisturbed they thoroughly police both earth and air. The thrushes, sparrows, larks, and wrens search the surface of the earth for insects and their larvae or hunt among the leaves and peer under logs and refuse for them. The warblers, vireos, creepers, and nuthatches with their microscopic eyes scan every part of the tree or shrub—trunk, branches, and leaves—and few hidden creatures escape them. The woodpeckers, not content with carefully scrutinizing the bark and limbs of trees, dig into decayed and worm-eaten wood and drag forth the burrowing larvae, which in their hidden retreats are safe from other enemies. The flycatchers, aided by the warblers, are ever on the alert to snap up insects when flying among trees and branches; while the swallows and nighthawks skim over the pastures and patrol the air high above the tree tops for such of the enemy as have escaped pursuit below. Thus each family plays its part in the never-ending warfare, and the number of insects annually consumed by the combined hosts is simply incalculable.

The Survey offers as another reason for governmental protection the ruthless slaughter of birds by hunters and by agents of commercial companies for beautiful feathers, and the destruction of nests at the hands of egg collectors. For many years the Audubon Societies have worked with the Bureau of Ornithology in establishing harbors for wild birds. There are now sixteen such reservations, carefully patrolled by wardens, and the trade in feathers is therefore greatly restricted. As these islands are now safe from depredation the birds are beginning to multiply in them.

We have passed in review the wonderful work of the Department of Agriculture in breeding plants and animals, in preventing disease, in creating better environment, in improving the quality of food for man and beast, in teaching the farmer how to grow his crops, in adding millions of dollars to the value of farm products; the thought must have suggested itself that if a like amount of work and thought were applied to humankind, even greater results might be produced. For is it not possible to develop choice strains in

men as well as in plants and animals? Can we not establish a department of prophylaxis, both physical and moral, for men as well as for plants and animals? And "is not a man worth more than a sheep?" A bureau of eugenics, or of health and development under a secretary like James Wilson, serving through several administrations, long enough to work out a definite plan, would certainly accomplish much for human uplift.

Social workers are busy preparing for that day. The government has been many times appealed to, to form a bureau of health and to grant a children's charter. To-day we have social agitation, education, and experimentation, and within a decade we may have the consummation of all these creative constructive plans, the results of which will not be expressed in millions of dollars, but in terms of life, in a marked increase in health, happiness and home comfort, and in the development of knowledge, temperance, morality and spirituality.

Not that the nation is entirely wanting in altruistic work of this kind—but our plea is that all this work should be co-ordinated, that

it should be made scientific, for the proper breeding of humans is even a greater science than that of breeding plants and animals; that if fish and birds need protection, so do women and children. James Wilson has set the pace for every other federal official. Some day all will be thinking in terms of human uplift as does this leader in his Department.

CHAPTER VII

Building Homes

"The nation that will lead the world will be the nation of homes," said Gifford Pinchot, at the Irrigation Congress at Spokane. "The most valuable citizen of this or any other country is the man who owns the land from which he makes his living. No other man has such a stake in the country. No other man lends such steadiness and stability to our national life. Therefore, no other question concerns us more intimately than the question of homes. Permanent homes for ourselves, our children and our nation—that is the central problem. The policy of national irrigation is of value to the United States in very many ways, but the greatest of all is this, that national irrigation multiplies the men who own the land from which they make their living."

How the people live is of vital interest to the nation. The question of urban congestion with its consequent crime and misery is of more than local interest, and its solution comes

within the scope of the federal government. Let us study the growth of cities, and notice the forces already at work in breaking up congestion, and scattering the people.

In the social life of the world every successive generation has its new problems, and its new methods for solving old ones. In the last quarter of a century we have stood amazed and almost helpless in the presence of a mighty rush of rural people toward the great cities, until the urban populations have become so congested in certain districts as to be a menace to health and morals.

The city has drawn into itself the farmer boy and the foreigner, because it has offered work for all, with regularity of employment. There could be found companionship, possibilities for education, together with the excitement of the street, and the amusement hall. For twenty-five years the millions from the old world poured into the prairie country of the west until all available land was pre-empted under the liberal homestead laws. Then that tide turned back upon the cities and a million aliens a year tarried within the gates and helped to swell the congestion.

The increased demand for labor in industrial centers, and the lack of opportunity to get on the land, brought about the problem of congestion, the solution of which has waited for a new day with its new possibilities. Granted congested factory life, under the old conditions there must be congested family life. Because there are docks and warehouses, depots and transportation facilities in certain sections only, in these sections blocks of factories must be built. The railroad favors this system of massing things together because of ease in handling freight. The factory owner must have a switch near by for the more economical method of shipping the product of his mill.

Large factories in a given section call for large tenements for the housing of the laborers. These are speedily built without reference to sanitary laws. This was markedly the case in the earlier days when the health boards were less efficient and had far less power than at present. Old mansions, deserted by their former owners, were filled to overflowing by numerous families. Without the necessary sanitary appliances, these places soon became rookeries, "where children were not born,

but cursed into life." Building lots in these congested areas were nearly covered with front and rear tenements, many stories high, and these were filled with dark rooms, dismal and unhealthy.

That congestion means disease goes without saying. Sewer gas, and lack of sunlight and fresh air breed germs of disease which would help to fill the cemeteries, were it not that poverty compels the use of the potter's field. It is reported that one in every ten persons who die in New York is buried at public expense in the potter's field—and this represents the limit of misery.

Tenements are training schools in bad morals. They have no redeeming qualities, and make for unrighteousness among their unhappy dwellers. Their pernicious influence lends color to the idea that environment means more than heredity; for certainly a well-born child raised in a tenement house with the streets for a playground and with oaths and drunken songs for a lullaby, starts life with a moral handicap.

Many of those whom society has branded as criminals, and has thrust into jails, are

products of bad conditions rather than of hearts naturally bad; and if congestion produces crime, the scattering of the population is an effort in favor of good morals.

Congestion is as much the cause as the result of poverty. "Those who are in poverty may be able to get a bare sustenance, but they are not able to obtain those necessities which will permit them to maintain a state of physical efficiency."

Tenement house life destroys the incentive for the improvement of living conditions. An ever-present saloon incites to lawlessness, and the inevitable debauchery lessens the power to resist disease and reduces physical efficiency as an asset. The dweller in a slum becomes too often sodden and hopeless, and therefore less of a man.

The indictment against the tenement with its consequent slum reads in this wise: It produces unnecessary disease, forms a training school for bad morals, fosters crime, promotes poverty, creates a stronghold for bad government, helps to people the potter's field, and as a whole stands as a menace to society. More jails and hospitals and nurseries are a growing

necessity to handle the product of the congested districts. If the tenement produces evil and evil only, is it not folly to deal with results when it is possible to be rid of the cause? It is a glorious charity to carry the little sufferers with surgical tuberculosis to the sea shore for a breath of fresh air, but this is largely a tenement house disease and need not exist if the child is raised in normal surroundings.

Against much of the crime, disease and death originating in the tenement may be written the word "preventable." Social workers everywhere are awakening to a sense of responsibility, and a campaign has been waged against the slum. It has been a ten-years' war against the worst of existing conditions. Social workers have of late realized that something more is necessary, viz., a campaign of education as to the method of scattering the people and ruralizing the city.

An appeal to commercialism must be made. "It pays to ruralize the city," is a statement which, when proven true, wins the support of capital, even though there may be no interest in the moral and social results. The

tenement and the slum must go from our American cities, notwithstanding the opposition of builders of the tenement who are coining money from the misery of the poor. No city can long exist half bad and half good. If left to itself, the slum will sooner or later control the city hall. There is but one safe way: exterminate the slums and make the city good.

But vested rights, corrupt politics, and bad business are strongly entrenched in these congested districts. Before victory is assured, it may call for more than a ten-years' war; yet the forces of righteousness are sure to win at last, because of the mighty civic awakening that has been coming about in the last few years.

Many wealthy individualists are now social reformers; university men have chosen social service as a life work; women's clubs, city clubs, and civic associations, which are multiplying on every side, have taken up the work of civic reform, while militant civic bodies are embodying in their membership the leading business and professional men in every community. These men are optimists with the

vision of a better city. Wherever evil is to be found entrenched, there are they to be found on the firing line.

In all our newer cities the battle with the slum may be briefer, for the population of the congested districts is small compared with that of the entire city. Large fortunes have not yet been expended in building brothels and tenements, and the political machine is not so strong as in the older and larger cities. But whether easy or difficult, an awakened citizenship is saying that the slum must go.

The slum is the home of sin in its reeking and revolting forms. There congregate the scarlet woman, the inebriate, the law-breaker—the wrecked and ruined sons and daughters of a common father. In this school of crime are to be found the children—the half-clad, underfed children, who are almost certain to follow in the sinful ways of their elders. The slum has no redeeming feature. Ragged schools and reform schools can never essentially change its conditions, for they work with results and not with causes; and the settlements can do little more than study, analyze, educate, and point the way out.

But the slum must go. Congestion must be broken up. Population must be scattered. The light must be let in; the city must be ruralized.

There are many forces at work to bring about a welcome change in conditions, the most prominent of which are, industrial removals, the building of model factory villages, the extension of the rapid transit system, the laying out of new tracts by real estate owners, the garden city movement, the industrial housing by municipalities, and the reclamation work of the government. But while the emphasis for the present is placed on these, yet we must not for one moment forget the grand work of letting in the light on the part of the municipality, as well as through private initiative. Jacob Riis saw Bottle Alley, Bandit's Roost, and Kerosene Row, with their fearful death rate and criminal record; he told the story of the wretchedness, misery, and sin of their unfortunates; he told it over and over again until someone moved, and those parts of the slum world are now no more.

Letting in the light in the worst places has brought into evidence the grime and the crime

of regions which in the darkness seemed more respectable. It is only a question of time when an awakened conscience will demand that the entire slum must go. Riis, Waring, and Roosevelt let some light into New York's slums, and every city took courage and let light into other slums. Mr. D. O. Mills and Mrs. Alfred Corning Clark said, "If the people must live in this huddled up condition, we will build for them men's hotels and model tenements, that they may live more decently and with less danger to health and morals." Then the committees on small parks and the playground associations opened recreation centers, baths and playgrounds, and the children began to come into possession of their own. The Whyo gang and the Hook gang were no longer the torment of the policemen on the beat. Yes, the slum is going and some of us may help to speed its passage.

Much has been done through the public schools to make life more tolerable in the congested districts. The roof garden, the school garden, industrial classes, and lecture courses are saving forces competing with the school of the street which trains for a criminal life;

but good as this may be, how much better it is to scatter the population and destroy the slums.

Through the establishment of a fund given by the late Baron de Hirsch, a systematic attempt has been made to distribute Jewish immigrants among different states where they can follow industrial and agricultural pursuits in exchange for their former commercial life. A systematic effort is being made to turn the tide of Jewish immigration away from New York and the other great centers. Instruction is given to the newly-landed immigrant concerning the possibilities in other parts of the country, where those who are skilled in certain trades are sure to find employment, and where there are Jewish settlements in which they can find friends who will assist them in making a new start in life.

For some time past an effort has been made to get the steamship companies to make Galveston a port of entry for Jewish immigrants. At least one line has responded, and these newcomers arriving on its first steamer are scattered throughout the smaller towns and farms of Texas, instead of being taken by

way of New York and crowded into its Ghetto. In the success of this movement is there not a suggestion for our government regarding the proper method of handling the entire million of aliens that reach our shores each year?

While movements like that of the Industrial Removal Office are being promoted by interested philanthropists, much is being done in the way of relieving city congestion along commercial lines, where dividends in dollars are the chief thing sought for. The rapid transit and real estate companies are scattering population in a normal way. As long as horse-cars were the only means of travel for the poor man, he was forced to live near the factory in which he worked. Electricity has greatly enlarged the zone in which it is possible for the factory hand to reside. In fact, distance is no longer an appreciable factor, a five or seven-cent carfare determining the limit of travel.

Nearly every city now has its interurban and rapid transit lines reaching many miles into the country, and it is to the interest of the operating companies to encourage settlers along the right-of-way.

A new profession has lately arisen, that of city architect, and the monumental plans already offered appeal strongly to all progressive citizens. While these plans have given special emphasis to cultural and civic centers, they ought also to include the distribution of the city's factories, and its working population. It is to be hoped that every city may come to plan definitely as to its housing and factories; so that there may never again be such a condition as exists in New York, where there are five blocks with more than 3,000 tenants in each.

Factory owners can render great service to the city by removing their factories to the suburbs; and if necessary building model industrial villages, thus attracting workmen with their families from the congested districts. Such a thing would pay, for land is cheaper in the country; and a larger measure of capital could be employed in new buildings, more completely equipped with up-to-date machinery, and with safety and sanitary appliances. Above all, health and happiness, and increased morality will add much to the efficiency of the employees. The fact that

this movement, even though it be made selfishly, places the employer in the line of social service work, ought to be an added incentive to such industrial removals.

Much has already been done voluntarily in changing the conditions of labor in factories. The enforcement of new factory laws has forced many owners to clean up, to let in light and to treat their employees more humanely. Yet when all is done to mitigate existing evils, there will still remain in the hemmed-in buildings a condition far from ideal. Gloomy surroundings, bad air, dusty atmosphere, cramped quarters, all make for ill health and inefficient work.

Those employers who have removed their factories to the suburbs testify that it pays, and that they have been able to expand their business as they never could have done in the old surroundings. The Cadburys, the celebrated cocoa-makers of England, for instance, moved to Bourneville from Birmingham, and in an ideal rural situation increased the number of their employees from 300 to 3,600. Visitors to this model village are unstinted in their praise of this method of housing workmen and

giving them an environment so much better than that of the slums.

The list is long of the industrial removals from the crowded cities of England. The Rowntrees of York, the Levers of Port Sunlight, the Clarks of Street, the Chivers of Histon, and Graves of Sheffield, have all set an excellent example to their competitors in the crowded cities. Many of the printing houses, both in England and America, have moved to the country with good results, both as to the health and morals of their workmen, and with increased financial returns. Scores of large manufacturers in the United States have learned the value of having a factory in a garden and have moved their factories to rural surroundings. These successful experiments ought to lead many others to plan for the removal of their plants at least to the outskirts of the town. The greater city may become and ought to become the better city. The scattering of population over a wide area wherever undertaken, has produced purer morals, greater efficiency, and cleaner government.

A city encircled by a hundred model in-

dustrial villages is a better city than the one where a hundred factories in the midst of congested tenements pour forth their volumes of smoke to defile the air and shut out the sunlight. It is a good omen for the future that captains of industry and many municipalities are now busy building industrial villages where once were barley fields and truck gardens, for they are realizing the evils of congestion, and also the good resulting from proper housing conditions. A home in a village free from the saloon and its kindred evils makes for sobriety and industry far more than life in a tenement surrounded by dives and barrel-houses. Times are undoubtedly changing, and a new altruistic spirit is in the air. Men are beginning to think of "the other fellow" at the same time that they plan for dividends.

Total abstinence is one of the best assets that the workman of today can possess. It is almost as good a recommendation as efficiency. That both are essential to good workmanship is now recognized by nearly every employer of labor. Because of this the owners of large factories and mills are almost

as deeply interested in the environment of their workmen as they are in finding markets for their products.

Notwithstanding the praiseworthy efforts which are being made to build model tenements, congested life can never be made ideal. Where there is a population of 1,000 to the acre, the saloon is sure to be strongly entrenched; and only by beginning anew, by closing up the slum and eliminating the saloon, can the standard be raised.

That temperance is a business asset is an accepted fact of modern commerce. Even a drinking employer will insist that his employees do not visit the saloon, and consequently he is interested in banishing the temptation to drink. There has been found no better way to accomplish this end than by beginning a new village life, free from the saloon curse.

In his "Model Factories and Villages," Budget Meakin quotes from a report presented to the directors of the Guinness Brewery by its chief medical officer, in which he discusses the value of the housing problem, as follows: "Until our families are given the

opportunity of being comfortably and decently housed we cannot expect to do much in raising their social and moral standard. I, therefore, make so bold as to look forward to the day when a brewery model village is built on the lines of Cadbury's at Bourneville, and Lever Brothers, at Port Sunlight, where our people can obtain a small one or two storied cottage at a reasonable rent. That the tenement house system, except for the very poor who must continue to reside in a congested city area, is a retrograde step, I am strongly of opinion; such a system neither conduces to good morals nor a high social standard of living. The well-paid laborer, whose earnings are constant, should be given a chance of having a self-contained home of his own; such a cottage can be made home-like, attractive and comfortable. In few cases is this possible in a tenement building."

Surely if the brewery feels the need of ideal surroundings for their men, other manufacturers ought not to be far behind. In the effort to solve the problem of finding shelter for a million people, private initiative began the erection of multiple dwellings, known as

model tenements, and if tenements must be built they were as near the ideal as could be devised. But many believe that there is a more excellent way of solving the housing problem.

To provide shelter for a city's poor is a problem too great to be left to the ordinary law of supply and demand. Experts must study, philanthropists must experiment, and municipalities must legislate or the slums will increase.

The city authorities and the manufacturers are experimenting along still newer lines by establishing rural colonies to relieve city congestion. Many such communities have been established in the past year in France, Germany, Denmark, England and America. The houses erected are artistic, sanitary, and comfortable. In them mill hands can live cheaply, in the midst of conditions which a high-paid artisan could not afford in the city itself. A recent writer, speaking of the changes demanded, makes the following forecast: "It is fairly certain that if London goes on increasing and developing as it has done for more than a century, the central districts will be denuded

of all resident population beyond a handful of caretakers; and improved transit will spread the crowds now swarming about the center over the whole circumjacent country. Then the workman and employer alike will live in semi-rural surroundings and only work in the city."

In America, assuredly, housing congestion and factory congestion go hand in hand. The factories must therefore be scattered as well as the people; and this is where the enlightened members of the community must place the emphasis in conducting the necessary educational propaganda. All manufacturers must be shown the splendid results of industrial removals and village building, until they come to see that it will pay them in every way to remove from the congested districts.

A strong and widespread effort is being put forth to re-make our American cities according to definite plans, which frequently involve a cost of millions of dollars. Much of this vast outlay can be saved by laying out new villages and suburbs in such a way that there will be no need of extensive change; and such restrictions should be made as to make certain

that there will never be any new congested districts.

Governor Hughes is reported as raising the question as to the wisdom of putting people in hospitals and caring for them, and of imprisoning them for crime and burdening the community with large loads of prison and hospital bills, if we can save human beings from disease and crime, and at the same time increase their efficiency by checking congestion. It is surely the dictate of wisdom to strike at the causes of disease and crime!

A quotation from an editorial by Dr. Devine in *The Survey* summarizes the foregoing contentions thus: "The difficulty, in a word, is that we have an uneconomical and socially injurious distribution of our national industries. From the national standpoint, under the present conditions, it is eminently desirable that manufactures and commerce should be to some extent transferred from the large centers of population to the smaller cities and towns. By port restriction of immigration, by the encouragement of removal on a large scale from the great cities to villages and towns, by a better distribution of population within the

geographical limits of cities, suburbs gaining on cities, and outlying sections on congested districts, by attention to town planning, the re-location of factories, the development of the transportation system and by a reversal of all policies, national and local, which have favored the concentration of population in a few spots, the nation must set its face against the evils of congestion."

Although the idea of city planning is comparatively new, there are to be found some in every city of the land who are seeking to make of the whole city from all points of view an ideal place in which to live, of making it a city of homes instead of tenements, lodging houses or even apartment houses. Why should it be left to the caprice of a few individuals to decide whether the land outside of a growing city should be held as vacant property waiting for larger returns, or laid out in some kind of allotments, without regard to the interests of the rest of the city? Far better for the city itself to decide in advance the character of all of the surrounding neighborhoods, buying and laying out in advance, for parks and playgrounds; establishing industrial, resi-

dential and agricultural districts, all with an idea to beauty as well as to utility. Where entire towns can be plotted before settlement, everyone of them should be made a Garden City.

Along with the movement to ruralize the city, by adorning it with trees and parks and liberal lawns, thus bringing much of the best of the country into the city, there comes also a counter movement, namely, an effort to urbanize the country, carrying into it much that makes life larger and richer. A deep longing for the land has taken possession of our city people. The abandoned farms of New England are being absorbed by the wealthy citizens of Boston and New York. "During school days we exist in New York," said a friend, in a rich apartment house, "but we *live* in the country." The old time jokes concerning the unhappy lot of the suburbanite, or even of the "Reuben" must be laid aside, for to these, in this new day of electricity, have come more of the joys and enrichments of life than to the crowded dwellers of the noisy city. This migration countryward is significant as one of the great world movements.

It raises the question, Do we really need a great city? The last two decades saw the growth of the skyscraper, which drew people to the center, but at the same time came the trolley line whose business it is to scatter the population. The old world has chosen to limit the height of its buildings, and has also undertaken to enlarge the borders of its dwelling places. May we not hope for the speedy arrival of the good time when all of the habitable land may be settled so ideally, that there shall not be so many buildings as to cause congestion, or districts so thinly populated that the people shall be lonesome for lack of neighbors. Until then some of the people must of necessity live under unsanitary conditions in disease breeding districts, where physical and moral deterioration are the natural results. The cry "Back to the land" is in reality the cry "Back to the farm."

From the standpoint of good home-making, the question to be decided is, How many acres of land are necessary in order to gain a livelihood through agriculture? In answer to this question, President Roosevelt says, "With an adequate supply of water, a farm of five acres

in some parts of the arid west, or of forty acres in other parts is as large as may be successfully tilled by one family." Bolton Hall, in his Suburban Farms Association in New York, and Wm. E. Smythe, in his "Little Landers" at San Diego, are claiming that on one to three acres of land near a large town, a family may secure a good income if the products of the farm are sold co-operatively. The smallness of the plots brings the homes close enough together for the pleasure of village life, without the evils of the city, or the loneliness of the frontier.

The land hunger that has long characterized the old world, is now in evidence in America. It would be hard to satisfy this deep-seated hunger were it not for the friendly offices of the federal government, because it believes that the establishment of the rural home means improvement in citizenship and in stability of American institutions. This nation is offering land to every citizen, on the most liberal terms. Before this policy was adopted, there was a great rush for the lands in the last frontier of Canada and 100,000 citizens left the United States for Alberta and the Canadian

Northwest. The opening of Oklahoma saw a great land rush, and the same thing happened when President Roosevelt opened the Rosebud Reservation in South Dakota—a great stretch of 382,000 acres—offered at one dollar down, and seventy-five cents per acre for four years. One of the last of the great land-rushes has just taken place, namely, the distributing among homesteaders by the Government's lottery plan, of 400,000 acres of the Couer d' Alene Reservation in Idaho, 6,000 acres Spokane Reservation in eastern Washington, and 450,000 acres of the Flathead Reservation in Western Montana, furnishing homes for nearly 20,000 people drawn from the cities and the crowded farms of the middle west. As an evidence of the demand for land for home sites, let it be noted that for 3,700 available homesteads, there were at Spokane between August 9th and 16th, 286,238 applicants lined up and waiting for the drawing, which was done in the following manner: The applications having been placed in envelopes were sealed in cans; these were cut open in view of the people, and the envelopes being piled in a great heap on a platform

were mixed with shovels, and a blindfolded girl drew them from the pile, one at a time, until the last of the prizes was taken. The 282,538 applicants turned back to the cities, or went on to some further hunt for home sites.

For these disappointed ones, and millions of others, our government is now busy working out a plan whereby all of them who will, may have a rural home, with all the conveniences of modern life. The government is wise in giving attention to its homes, for if they are bad, or if they are massed together in congested, vicious neighborhoods, they may become breeding places for crime. If the nation is justified in giving attention to the rain-barrel from which the stegomia mosquito starts on its fever-producing mission, because yellow fever may destroy hundreds of lives, certainly human environments which make for evil ought also to receive its attention, for millions of lives as well as the morals of the land are at stake. To this work of home-making, several of the departments of the government are giving special thought.

The Department of Agriculture is working, not alone to increase the farmer's bank account

but also to enrich his life in the things that make life worth the living. The Department of Commerce and Labor is studying the question of labor in its relation to the home. They are asking if twenty-one women out of every hundred are bread-winners, what about the problem of dying babies? If a multitude of children labor at the loom and the coal breaker, what will be the effect on the next generation of home makers? If in the industrial world, hundreds of thousands are forced to work for less than a living wage, what chance will there be for such workers to own a home?

As long as there was available free land, the Interior Department gave to all who sought it a homestead, which by diligent labor could be made into a homesite. The Bureau of Immigration has undertaken a new work of scattering the immigrant, and this may develop into a search for homes for him, as well as for a chance to labor. But it remained for the Reclamation Service to undertake the real work of home making for a nation. The Reclamation Service is now "impounding mountain-born streams and distributing them over desert fields where only the zahuara figs

and mesquite beans have ripened for wandering Indians," and this means more than raising Smyrna figs and mission grapes on irrigated lands, it spells equality of opportunity for many who are now slaves of a competitive system.

The annual sale of over \$8,000,000,000 of farm products has not compensated the farmer for the loss of the advantages which the city has to offer. The report of the President's Country Life Commission shows conclusively that the closely settled rural community, with scientific intensive farming, together with more complete agricultural education, will contribute greatly towards the urbanizing of the country-side, checking the drift of the boys and girls cityward, and also preventing the final abandonment of the farm. As an example to the older regions, the government is now building cities for the farmers. Of necessity, this work must be done in the arid regions for it is there and there only for the present that the Reclamation Service is at work. There in the desert, with its sage brush and grease wood, its rattlesnakes and Gila monsters, a land parched by the burning sun

and shunned by all but the most venturesome white man, on this last frontier, the government is planning to settle its citizens in comfort, in homes of their own, with the promise of health and wealth and happiness to all who may have the true co-operative spirit.

In this region, long vacant and voiceless, and regarded as valueless, a region large enough if placed in one tract to make a great new state richer and more densely populated than any in the union, the Reclamation Service is seeking to build ideal rural communities. The government believes that "a multitude of little farms, well tilled, instead of a few wealthy, powerful cities and a depopulated country, are of greatest importance for this country's future greatness," and that, "compact farming communities insure almost ideal social conditions, bring educational advantages never before heard of to the farmer's family, which will forever do away with the isolation of ranching in the desert, and promote intelligent, progressive citizenship."

These closer social relations will relieve the farm life of its loneliness and enable the farmer's family to keep up with the spirit and

amusements of the urban settlements. The new idea now being actualized by the Reclamation Service is that of the "farm unit city," as centers of highly intelligent farming communities.

In every reclamation project, it is planned to establish several town sites about one mile square, these town sites to be so arranged that no farm will be more than four miles distant. The center of the town will be reserved for a public school, around which will run a broad street; the main streets will terminate at the schoolhouse, and broad diagonal streets will run far into the country. The schoolhouse thus becomes the civic and social, as well as the educational center. And, inasmuch as in the building of nearly every dam, electricity is developed for power, when the water is turned on the electricity will be available for all purposes in the homes of the town. In some cases there will be enough electricity to be sold for power for farm and factory. On one of these projects coal has been discovered and this will probably be turned into electricity at the pit mouth instead of by the wasteful smoky method so common in the middle west.

Through the co-operation of the Good Roads Division, the roads leading from town to town will resemble boulevards, thus greatly aiding in the social life of the larger community. These roads, will, no doubt, be lighted by electricity. The towns will be equipped with water and sewer systems, parks and playgrounds, as every town might be if only it had been possible for it to have been planned in advance, as are these government towns. Rural telephone, and rural postal delivery will keep the entire community in touch with one another and with the wide world beyond. As every farm will be within easy reach of the center, without doubt every farmer will choose to live in town and will drive to work every morning, thus fulfilling the dream of a happy combination of urban and rural life; a life favorable to the development of the best and noblest institutions of society.

At a center of service to several towns, the Union High school will be built, the pupils brought when necessary in wagons, thus making it possible for every boy and girl to secure a thorough education, for this union method will guarantee a school large enough



Clay Road, Eastover, S.C.

to attract the best teachers and strong enough financially to secure the best equipment. As this plan widens out, the day of the little red schoolhouse will pass away. In time every one of the growing municipalities under this Federal system may have its own public utilities. The creation of the new town site will furnish an experiment in municipal ownership well worth the watching.

In order to insure success even to the inexperienced irrigator, the government has "established experts on the land to show the settler the best methods of using the water. It also gives information as to the soils and the best manner of working them, what crops are the most profitable and the best manner of cultivating them. It virtually conducts agricultural kindergartens on experiment farms in the various tracts, giving guidance that is invaluable to the settler not familiar with irrigation farming. The trained farmers themselves develop many new ideas by their constant experiments. The experts are glad to have the co-operation of these experienced husbandmen."

Is there any wonder that the demand for

these reclaimed lands is so great that nearly every acre is homesteaded long before the dam is finished, and the water turned into the ditches? Already several towns are well started although only water sufficient for household uses has thus far been developed. New settlers are flocking in, largely from the Mississippi Valley, and Chicago has become a distribution center. Although these lands are given free by a liberal government, yet money is required by the settler in order that he may be properly established without too great hardships.

The following estimate of things required is made by one of the early settlers: "One ought to have at least \$1,000. Of course I do not mean that a person ought to have that in cash, but he ought to have a team, some household furniture, a cow or two, some hogs, and some chickens and money enough to maintain himself for about a year, besides enough to build him some sort of a house." He adds, "It is not always the lack of means or the pleasures of the city that deter people from gathering their effects and journeying to distant regions to establish new residences. It

is the sentiment that surrounds home ties, the love of old association that deters many from changing their places of abode. It is hard for people to leave familiar surroundings, break away from the close friends they have been among for years and put miles between themselves and those associations endeared to their hearts. There is a solution for this, though. Families may co-operate and journey in communities from the cities to the new lands. Three or four families, either of relatives or of close friends could take up farms together, and establish themselves in the further west. There would be no breaking of the old familiar ties. The hegira would, under these circumstances, become more of a pleasure trip, the new life a pleasant one, filled with the same old friends, preserving the same old ties."

During the settlement of the middle west and the far west, there were many instances of the establishment of colonies like Grinnell, Iowa; Greeley, Colorado; Ontario, California, in which the co-operative spirit aided much in the ultimate success of the undertaking, but no other enterprise has ever developed such a combination of collectivism, fraternalism, and

individualism, as is found in the government reclamation projects. Collectivism is employed in the building by the nation of the great reservoir and the retention of its ownership and control, because upon its future enlargement must depend the further expansion of reclamation. Co-operation and fraternalism are necessary, because each settlement is organized as a water user's association, no one person being allowed more water than is needed for 160 acres. In these ways, there comes about a community of interest, which in a marked degree leads each to work together for the good of all. Individual initiative is necessary in the intensive cultivation of the individual farms. Here individualism is at its best. Fraternalism is the natural method of life, and the government stands behind to guarantee the success of the entire movement. The nation is providing homes for the most citizens possible, but it is for them to determine that thrift shall bring the patent, and that here the great co-operative tendencies of the time shall come to their fairest fruitage.

A suggestion is offered to young men now in college, who are settling the question of their

life's work. If six or more of them should form a compact that on the completion of their special courses they will go to a government "project," settling in the different towns, as doctor, lawyer, preacher, teacher, merchant, or agricultural expert, with the determination that as a united band they will work together for the highest social ideals; agreeing that there may never be a saloon located in any of the towns; that there shall be no crime-breeding spots, and that the rights of the lowliest shall be guarded—how much better would be such a co-operative movement among educated men in a new land of opportunity, than the best possible condition under the competitive struggle of the older cities.

That a community "made up of people who own their own holdings and live on them is of infinitely more value to the nation than any area, however rich and productive, owned by a few persons and tilled by hired labor or rented to the men who cultivate it," is self-evident.

But wonderful as is the work which the nation is doing in getting the people on the land, and protecting them from exploitation, yet something more must be done. The

fellow who is down must be given a chance. The ambition for independence must be aroused in the souls of the discouraged. The immigrants must be placed on the land in order that society may be protected from the final revenge of the slum. The overflow and idle population must be distributed. For the settler who has sufficient capital, the present irrigation projects furnish a grand opportunity, but the next great battle will be for the adoption of the New Zealand system of advance to settlers; which may be thus epitomized: "Place this waste labor upon the waste land by means of waste capital, and thereby convert this trinity of waste into a unity of production."

It is reported that the late Senator Hanna just before his death was preparing a Senate bill, outlining the creation of model towns on reclaimed lands, by the selling of bonds to the value of \$50,000,000, and by granting the government power to make loans of from \$500 to \$1,000 to poor but worthy home-seekers. New Zealand has already expended \$20,000,000 in aiding her farmers to establish rural colonies, thinking it wise to borrow at

three per cent and loan at four per cent to settlers. In her experience, she has never lost a dollar, but for every dollar loaned, has added five dollars to the wealth of the country.

The United States can surely adopt this or a better method, thereby converting possible pauper dependents on charity into affluent home owners. Some day, perhaps, this nation may become interested in seeing that every American in this fair land has a home whether he be a younger son—the typical prodigal, a new American, or one of the dispossessed.

This nation has entered upon the work of building homes, and no cry of over-paternalism will ever cause her to yield up the ideal of giving a home to every American.

CHAPTER VIII

Enrichment of Life

A nation building homes for its people—that seems to the conservative like a long step toward the co-operative Commonwealth, but having gone this far our nation must go still farther, and give attention to the enrichment of the life of all the people; for the highest civilization of any land is not tested by the amount of wealth counted in dollars which it may possess, but by the kind and quality of the men which it develops.

This nation is most successful in its work of aiding the evolution of plant and animal life. The time has come, in a collective way, for all citizens to become workers together with God in aiding human evolution on the mental, moral and physical planes, in the struggle upward. In this, we are working for the future, and in proportion as we of America accept our responsibility as trustees of the nation's welfare, our children and our children's children will call us blessed.

The federal government is coming into personal touch with the people at large in many ways, but in none more closely than through the Post Office Department. A report to the House of Representatives says, "Upon the Postal Service more than upon anything else depends the general economic, social, and political development of our country." Through this service, the whole world is brought within reach of every man, whether he lives in Boston, or Alaska, Porto Rico or Guam. It gives access to knowledge, cements the bonds of friendship and helps to overcome the sense of loneliness because of isolation. Through the Postal Service, the government stands ready to send of its stores of knowledge accumulated by the departments, books and pamphlets, reports and bulletins, that would fill a small library. Even the most remote mountaineer or dry farmer on the desert, by merely sending a request, can receive by return mail from the government, without charge, that which if paid for, only the rich might buy.*

***INSTRUCTION OF SCHOOL CHILDREN IN POSTAL MATTERS.**

On September 18, 1908, the following order was issued:

Postmasters are hereby directed to confer with their local school authorities with the view of adopting the most effective

The world has for so long a time been accustomed to the usual workings of the Postal Service that it seldom asks the question, whether this can be improved, yet there is evidence of an increasing demand for the greatest service which it is possible for the Department to render. Cities had long been accustomed to the daily delivery of mail before the demand for rural delivery was heard at Washington, and the actual routes established. Then for the first time the nation began its work of human uplift, as applied to the countryside. Before the inception of this work, the farmer was too often isolated, cut off from the direct touch of life,

method of instructing school children as to the organization and operations of the postal service. These instructions should cover such features of the service as the delivery of the mails, the classification of mail matter, the registry and money-order systems, and particularly the proper addressing of letters and the importance of placing return cards on envelopes. Postmasters should arrange, if possible, to deliver personal talks to the pupils on these subjects and should give teachers access to the Postal Guide and the Postal Laws and Regulations and render them every assistance in securing information.

Numerous reasons presented themselves showing the necessity for a systematic education of the public in the ordinary operations and requirements of the postal service. The thousands of pieces of mail matter received daily in the Division of Dead Letters present a most vivid illustration of the necessity for having the name and address of the sender appear on an envelope.

but the government dispelled this sense of isolation by sending its messenger of news daily to 4,000,000 homes. The growth of the rural service has been remarkable, for starting in 1897 with eighty-three carriers at an expense of \$15,000, it has grown to a service including 40,000 carriers, who carry mail over nearly a million miles of road, at a cost of \$35,000,000. This service is conducted at an annual loss, yet in view of the patronage of 18,000,000 people, the enrichment of life counts for more than the nation's loss in dollars and cents. Loss there is, but in order that this material loss may be converted into income, the post-master-general is pleading for the establishment of a local parcels post, limited to the rural routes, by means of which an income of \$15,000,000 per year would be earned.*

The carrying of parcels through the post office is not a new thing, for it has long been

*The Postal Department issues excellent post route and rural delivery maps. Many interests outside of the postal service including other branches of the government, business firms, and private individuals, make considerable use of the post-route maps and the rural-delivery maps. These maps are furnished under the statutory provision that authorizes the sale of copies at the cost of printing and ten per cent. thereof added, the proceeds of such sales to be used as a further appropriation for the preparation and publication of the maps.

in successful operation in most European countries. The size of the parcel which can be sent is indicated by the limit of weights, allowed in the following countries:

<i>Pounds</i>	<i>Pounds</i>
Great Britain . . . 11	New Zealand 11
Germany 110	Austria 110
France 22	Belgium 132
Italy 11	The Netherlands . . 11
Chile 11	Cuba 11

The government report shows, that, "The present rate on the general parcel post is 16 cents a pound for people in our own country, the limit of weight being four pounds, while the rate from the United States to twenty-nine foreign countries is twelve cents a pound and the limit of weight to twenty-four of these countries is eleven pounds. In other words, our own people must pay four cents a pound more for the privilege of dispatching packages to each other than when destined to residents of a foreign country. A rate of twelve cents a pound for packages forwarded through the mails to post offices in the United States and its possessions, subject to the same regulations as exist at the present time, with the

exception of increasing the weight limit to eleven pounds, has been recommended by several of the postmasters-general, but as yet it has not been established by Congress."

The English system, now twenty-five years old, will no doubt prove a model for our Service when authorized by Congress. "Great Britain's parcels post has become one of the most important and highly appreciated of the postal features. Its growth has been continuous and phenomenal, and its scope has frequently been broadened. There was an early clamor for an agricultural parcels post. The owners of small farms in remote localities wanted it. The growers of spring flowers in Kerry, said it would enable them to compete with the south of France and the Scilly Isles. Eventually the agricultural parcels post was authorized and also spacious dimensions for packages. Flower-growers can now send full length orchid spikes and long stemmed roses by post, where formerly only simple blooms were admissible. The produce of the culturists goes forward to London and other big English cities in tremendous volume. Fresh fish, dispatched from seaport towns to the

large hotels, are delivered with celerity. Meats, cheese, fruits, vegetables, and freshly laid eggs in mail packages under the eleven pound limit form a very considerable factor in the commerce of the kingdom.

“The big retail stores of London avail themselves extensively of the parcels service for delivery of goods. The rates, ranging from six to twenty-two cents, are not prohibitive. In many cases the government service is cheaper and quicker. Laundries return washing by parcels post. In Germany, where the rates are even cheaper, lads away at school send their soiled linen home by mail to be washed, and it is returned to them by the same conveyance.

“Many curiosities, as well as staple articles of trade and foodstuffs, are carried in British parcels. A live baby, it is said, was posted in London not long ago and promptly delivered at its destination.”

In pleading for his pet measure, the postmaster-general claims that an extension of parcels posts in the United States would be enormously facilitated, by the prevalence of telephones. Farmers and culturists now have

them the country over. Telephone wires have followed in the wake of the rural free delivery wagon. The postage is now too expensive and the limit of the package too small; but instead of a four pound package for sixteen cents, let there be an eleven pound package for twenty-five cents and the rural routes will do a rushing business. Rural patrons will telephone to town for many of the things they want—for hardware, groceries, and dry goods—and in turn will be mailing to town, butter, cheese, eggs, and vegetables.

If this parcels post is so useful and essential to the enrichment of the life of the people, then why does not Congress order its establishment? Postmaster-General Wanamaker, who first urged the establishment of the parcels post, summed up the situation epigrammatically in his one hundred reasons for and only four reasons against it; those four being the express companies. Permission to carry articles above four pounds weight at their own rate has meant millions of dollars to these companies. Inasmuch as there is a lobby at Washington, the people are not as yet benefited by the parcels post. But if the parcels

post cannot be universally established, why not at least establish it in the rural communities. This was the thought of the President of the United States in his message, communicated to the two Houses of Congress at the beginning of the second session of the Sixtieth Congress.

“In my last annual message, I commended the postmaster-general’s recommendation for an extension of the parcels post on the rural routes. The establishment of a local parcels post on rural routes would be to the mutual benefit of the farmer and the country storekeeper, and it is desirable that the routes, serving more than 18,000,000 people, should be utilized to the fullest practicable extent. An amendment was proposed in the senate at the last session, at the suggestion of the postmaster-general, providing that, for the purpose of ascertaining the practicability of establishing a special local parcels post system on the rural routes throughout the United States, the postmaster-general be authorized and directed to experiment and report to the Congress the result of such experiment by establishing a special local parcels post system on

rural delivery routes in not to exceed four counties in the United States for packages of fourth-class matter originating on a rural route or at the distributing post office for delivery by rural carriers. It would seem only proper that such an experiment should be tried in order to demonstrate the practicability of the proposition, especially as the postmaster-general estimates that the revenue derived from the operation of such a system on all the rural routes would amount to many million dollars."

The postmaster-general further urges that this system be at once put into use, for while adding appreciably to the postal revenues, it will also directly and vitally benefit every man, woman, and child within reach of a rural route. The countryman would have the necessities of life delivered at his gate at an average cost of two cents a pound, and consumption thereby would be facilitated and increased, augmenting the trade of thousands of country merchants. Every component part of our commercial system would feel the effects of an increased prosperity. It would inevitably tend toward the improvement of the roads.

Better roads and improved postal facilities in the rural districts, would result in increased values of farm lands. The rural service as now organized has accomplished something in this direction; its enlargement will add to the good attained.

Sometimes a vision is better than argument. In December, 1907, *The Outlook* published an article by James L. Cowles, purporting to be a statement made to a delegation from the Chinese government in 1912, showing how the United States government manages the entire business of public transportation and transmission within our National Territory. Speaking of the actual condition in 1912, he says:

“The United States rural mail service now covers all the local traffic within a rural route, and provides for a regular interchange of persons, produce, and ordinary mail matter, morning and afternoon, between the different routes and the outside world. The new service furnishes organized transport facilities for the education of the children and for the occupation and recreation of the whole population outside their homes.

"The national government guarantees the dweller in the remotest cabin on a rural route that, up to the limits of the general postal service, he shall be on a par as to the cost of the transportation of his supplies and his produce with the biggest corporation in our greatest metropolis; as to his local business, the government provides him with the best possible machinery for the transport of himself, his family, his supplies, and his produce, to and fro, within the limits of his rural route, at a cost so low as to stimulate him to the uttermost use of his powers. Under this stimulus the special characteristics which differentiate men and places from one another are rapidly discovering themselves, and now industries are in process of creation on our rural routes that promise to be exceedingly profitable to the whole country. Where, under the old conditions, there was hopeless stagnation, there is now joyous, vigorous life. The service pays its way, and at the same time adds hundreds of millions a year to the wealth of the rural public.

"On the average twenty-four mile route there were originally but 125 families, about

600 persons. The population, however, is rapidly increasing. The actual cost to the average rural family is considerably less than sixteen cents per day.

"No trip of a person or a parcel is over twelve miles; the trip of a child to a primary school is not over three miles; to a graded school not over six miles.

"Every family has its telephone, and goods ordered from a city two hundred miles away of an afternoon are delivered the next day, in some cases by the morning delivery. So too, milk, butter, eggs, chickens, squabs, etc., ordered by a city family or store two hundred miles away from a rural family of a morning, are delivered before noon the next day; for we have a city postal service, the counterpart of the rural service."

While this is but the vision of a dreamer, who will say that it is not well within the range of possibility?

Another movement toward bringing the post office up to its highest efficiency is that for the establishment of postal savings banks or depositories in connection with post offices.

The following facts from a report of the

postmaster-general, show that the Department desires the establishment of these banks for the good of all the people. It has been estimated, he says, that altogether fully half a billion dollars which is not today placed in any bank, due to want of opportunity or lack of confidence, might be brought back into circulation through the agency of the postal savings banks.

In Japan the total amount of deposits in postal savings banks is about \$46,000,000, an average of \$5.77 to each depositor. This money would not in all probability have found its way into the channels of trade but for the establishment of such banks.

As an evidence of the demand for postal savings banks, we have reports from postmasters that they have been compelled to refuse to accept deposits offered by foreigners for safe-keeping, and also that our own people have bought postal money orders during the last year, payable to themselves to the extent of \$8,104,447, on which amount fees of \$25,000 were paid.

A bill was recently passed by Congress establishing postal savings banks in the United

States. Although the amendments will lessen the efficiency of the original bill yet the friends of this movement regard its passage as a very great victory.

The postmaster-general urged the adoption of this bill because he believed that postal savings banks would foster thrift and increase the habit of saving in many states and localities where opportunities for depositing savings do not now exist, and would in the end serve as feeders to the regular stock and mutual savings banks, where greater returns would be received. Thus they would be a real benefit not only to the people, but also to existing financial institutions. Practically all the leading nations have postal savings banks in successful operation. No one can justly say they are not needed in the United States, with its vast sections unequipped with facilities for the deposit of savings, while the experience of Canada gives reason for belief that they can be managed successfully in the United States.

This bill was fought in Congress by the banking interests of the country, but the success of the postal savings banks in Great Britain and elsewhere answers the objections

made by the special advocates of the present system. These banks have exerted a wonderful influence in promoting thrift and saving on the part of the poor. A writer in describing the postal banks of England, writes:

“Englishmen who in the old time were in the habit of spending a goodly portion of their earnings at the public house of a Saturday night, have in thousands upon thousands of instances been induced to set aside part of their earnings for deposit in the government savings banks. Soon they had accumulated quite a little nest-egg, and were then encouraged to put away more and more, and often all the money that formerly had been spent in the public-house found its way into the government savings banks. Children were led to deposit their little money, instead of spending it as before on candy, etc. So in various ways England became a nation of depositors; thrift was encouraged and hoped for; the family which had a few government consols to its credit and the prescribed limit in cash in the government depository, had a great load lifted from its heart. The former ever-present dread of sudden sickness,

death and the potter's field has been lifted in the case of a vast army of Englishmen, who under no circumstances would have deposited their money in private institutions."

In a prospectus issued by the government for the use of the Filipino, it is claimed that in a country like the Philippine Islands it would be very difficult and costly to provide a separate, suitable, and convenient place in which savings could be deposited by the people generally. For this reason the government has provided for placing savings banks in the most widely distributed offices in the islands—namely, the post offices, and the banks are therefore known as postal savings banks. These banks have been established in the provincial capitols and will be extended to other post offices as rapidly as seems desirable. In this way the largest number of people can be reached with the least expense.

The government of the Philippine Islands guarantees to return to the depositor all sums of money placed in the postal savings banks in accordance with the rules and regulations for the guidance of depositors, together with interest thereon at the rate of two and one-

half per cent. per annum as provided by law. There is absolutely no danger of loss as there sometimes is in the case of private institutions. The government advises the Filipinos that they can deposit their savings, be they large or small, in these savings banks with the absolute assurance of getting them again when they are needed. It will be no longer necessary to hide their money in the ground or about the house or place it in the hands of a friend for safe-keeping. There is great danger of loss in trying to keep money in any of these ways, but there is not the least danger of loss if they place it in the postal savings bank. Moreover, money hidden away for safe-keeping yields no income, while money laid away in the postal savings bank is working for them night and day at the rate of two and one-half per cent. per annum.

The reasons given why the Filipinos should save their money and place it in the postal banks might well be applied at home were the opportunity for saving given to the poor people of the mainland, as it is given to the islanders. If a man consumes all his earnings, says our great nation, it will be impossible for him ever

to rise above his present station in life. Not only is this true but in times of adversity he will have no means of preventing a fall to a still lower level, so that a failure to save inevitably leads a person on the downward road toward destitution, want, and suffering.

The first penny saved, however, is a step toward better things. It means that the consumption of something useless or unnecessary has been abandoned and the money saved for the purpose of buying something necessary in the future. Man has been said to be but a "bundle of wants." Success in life consists in subordinating the lower of these wants to the higher.

Every person should have some definite idea about his own future, should know what he wants to make of himself, and should make the expenditure of his earnings contribute directly to the attainment of that end rather than let it become a mere unorganized dribbling away of money. The greatest temptation to the careless expenditure of money lies in the satisfaction of the wants of the moment which are too often the result of our impulsive and emotional nature, and as a general thing

unessential to the accomplishment of a higher purpose, being in fact often debasing in their nature. The curbing of such wants gives courage and strength to character, lends dignity and self-respect to one's life, as well as results in the saving of money with which one can in the future take advantage of those opportunities which so often present themselves at every man's door. By such advice as this, the government is seeking to encourage thrift among the Filipinos.

In order to facilitate the deposit of small savings there are issued by the Bureau of Posts, postal savings bank stamps in denominations of five, ten, and twenty centavos. These stamps will be sold at every postal savings bank in the Philippine Islands.

Postal savings bank stamps, when purchased are to be pasted on cards which will be supplied free to those buying stamps. Five centavo stamps must be placed on cards arranged with twenty blank spaces, ten centavo stamps on cards with ten blank spaces, and twenty centavo stamps on cards with five blank spaces.

When the blank spaces on a card are pasted

full with appropriate stamps, the card may be deposited at any postal savings bank as though it were a Philippine dollar.

Since the occupation of the islands, the government has constructed, maintained, and successfully operated cable telegraph lines connecting all of the principal places and islands.

If the government of the United States can successfully own and operate public utilities in the insular possessions, why does it not do the same thing in the States where the need is even greater? Telegraph and postal banks in the Philippines, railroad and steamship lines on the Isthmus, are but so many reasons why public utilities should be operated in the interest of all the people, rather than for the aggrandizement of the few. Our Insular possessions may prove to be fine experiment stations in sociology.

That our government is in social service is illustrated on the Isthmus of Panama in the care which they take for the health and comfort of all the laborers. Thousands of bright, educated young men have taken positions on the Isthmus and their lives would have been



The government hospital on the Panama Canal

desolate and the temptations great had not the nation given attention to the social side of the work. The description of the government club house is of interest.

To add to the happiness and welfare of the men employed by the United States government in the construction of the Panama Canal, there have been erected, equipped and placed under the management of the Young Men's Christian Association, four magnificent commission club houses. These are located at Cristobal, Gorgona, Empire and Culebra.

These club houses were erected by the government, for the use of all white, gold employees, and for non-employees upon election to membership. The buildings are uniform in size and are described as containing a reception lobby with library, secretary's office, soda fountain, phonograph and easy chairs. A billiard and pool room with five tables, good light and ventilation, enthusiastic players, and first-class equipment give continuous popularity. A reading room with a reference library and a hundred leading magazines and newspapers selected to satisfy the taste of all classes of readers from all parts of the States,

makes life seem more home-like to those who are far from friends and former associates. In the rear of the main building, connected by wide verandas, are the bowling alleys. Here men can bowl to their heart's content on alleys seldom excelled in the States. In this annex are found shower baths and lavatories. The second floor of the main building provides a committee room, small game room and a large hall used for local and imported entertainments, Sunday meetings, and social functions, given both by association members and outside organizations. A stereopticon, moving picture machine and piano are features of the equipment. This hall is used also for the regular gymnasium work, indoor athletic meets and such games as basket, volley and indoor base ball. The library in each club house contains about six hundred volumes, carefully selected, chiefly of fiction, history, travel, science, poetry and biography. Some of the latest and best books are being added to the library each month.

*Authority also has been given by the Panama Commission to construct a number of

*Summarized from the report of the Panama Commission.

suitable buildings to accommodate properly those who wish to attend religious services. Where necessity seems to require, the erection of two storied buildings is contemplated; the upper floors to be fitted up as lodge rooms for orders and societies already existing or which may later be formed among the employees, while the first floors will be used for religious purposes. The Commission maintains a corps of chaplains whose duties consist in holding religious services at the various towns in the Canal Zone, making daily visits to Commission hospitals, and performing such other duties connected with their calling as may be requested. Practically every religious denomination is now represented on the Isthmus by these chaplains.

A university club has been organized in the city of Panama, which provides suitable table board and assembly rooms for its members, while in addition to the recreation halls and university club, the employees themselves have established clubs of various kinds, fraternal orders, and athletic associations, in various places along the line of the canal. There have also been established a number of

women's clubs in the various towns along the canal route.

In its bearing on the enrichment of life, the good roads movement is equal in importance to the conservation of national resources, reclamation of arid lands, and the national waterways. Not until recently did the general public awaken to the fact that the common roads of a country were a disgrace, and a hindrance to civilization. Like their ancestors the people were willing to drag through mud and sand and dust without thought that there was an alternative.

The rapid settlement of the country in widely scattered communities made road building in the new west a heavy burden, so that the people welcomed the advent of the railroad as it lessened the need for common highways. The demand for better roads came not from the farmer and the country merchant who suffered most, but from a new class of travelers on the king's highway. The bicycle rider, the automobile owner, and the driver on the rural delivery route, these woke up and took notice. Decades ago, the great Sumner in the United States Senate declared that the schoolmaster

and good roads were the most important agencies in the advancement of civilization. This must have been the faith of the fathers of the nation also, for they encouraged the building of the little red schoolhouse at every crossroads, and as early as 1802 Congress gave attention to road building by adding to the bill admitting Ohio to the Union, a provision setting aside five per cent of the net proceeds from the sale of public lands in that state for building roads from the navigable waters of the Atlantic coast to and through the State of Ohio, two per cent to be available for roads without the state and three per cent for those within. "The first expenditure from this fund was made in 1806, when the construction of the so-called Cumberland road was begun.

*Subsequent appropriations swelled the amount expended upon this famous road to over seven millions of dollars. Starting at Cumberland, Maryland, it ran westerly over the Alleghanies, across the Ohio River at Wheeling, and on through the states of Ohio, Indiana, and Illinois nearly to St. Louis.

*From report of James W. Abbott of the Office of Public Roads Inquiry.

It was constructed in the most substantial manner, in accordance with the highest European standards of that time, and was the best road of such length ever built in a direct line between two points anywhere in the world."

Congress established similar funds from the sales of public lands in Louisiana, Indiana, Mississippi, Illinois, Alabama, Missouri, and Iowa. Besides the Cumberland road, or "National Pike," as it was often called, Congress planned for twelve other great national highways, which were laid out and partially built in the southern and western states and territories. These various roads were designed to be the arteries of a fairly complete system of intercommunication, in the regions which they traversed, according to the geography of those days.

The great financial panic of 1837 compelled a restriction in government expenditure, and for sixteen years thereafter few appropriations were made for road construction. The policy was resumed in 1854, and up to the beginning of the Civil War further sums, aggregating about \$1,600,000 were thus expended. By this time the railroad had effectually displaced

the common highway in public attention, and for more than forty years the government paid no attention to the construction of roads.

It was the bicycle which caused the revival of interest in good highways for the nation. The League of American Wheelmen under the initials of L. A. W. will long be remembered as initiators of this splendid movement. Through their paper, *Good Roads*, a national convention was called to meet in Chicago, 1892, at which time the National League for good roads was formed. This organization succeeded in inducing Congress in the following year to establish the office of Public Roads Inquiries, as a branch of the Agricultural Department. The act made it possible for the secretary to make inquiries regarding the systems of road management throughout the United States, to make investigations regarding the best methods of road-making, to prepare publications on this subject suitable for distribution, and it also enabled him to assist the Agricultural colleges and experiment stations in disseminating information on this subject.

Through this medium, now known as the

Office of Public Roads, a road census of the world is now being taken. This aims to gather all the information of highways that the people of the world possess. The search will extend to every country and island, leaving no knowledge unfound concerning the building and maintaining the world's highways. Careful men will gather all books, maps and descriptions obtainable and send them to Washington. The director is able to secure through the Department of State, the services of all consuls and consular agents in gathering this information. This army of helpers will be augmented by 2,500 road correspondents, representing nearly every county in the United States. Such a census will be of great value to all interested in good roads.

Director Page of the Public Roads office and the national forester have arranged to work together in the interest of the Forest Service. This agreement provides for the planning and laying out of a marvelous system of roads and trails through the forests, up and down the sides of mountains, and along the very crests and ridges of the great western hills. The

Office of Good Roads is co-operating closely with the Reclamation Bureau in determining the character of the roads of the "farm unit cities" under the great reservoirs, that they may not only be good roads but as long-lived as the roads of ancient Rome.

The rural route carrier, when he finds his road so impassable that he cannot deliver his letters with regularity, reports the fact to the director of Public Roads. This official then sends instructions to the local officials informing them that on request an expert engineer will be detailed at government expense to advise them about the repair or construction of a proper road. He may, if desired, direct the work until the method is understood by the local roadmaster.

The increasing use of motor cars has not only hastened the destruction of existing roads, but it has also increased the demand for dust-free, mudless highways. "The heavy rubber-tired automobile moving at a high rate of speed produces a partial vacuum behind each wheel which sucks up the dust from the road surface and throws it into the air to be carried off by the wind. This action soon

strips the macadam road of all fine material, the result being that it soon disintegrates." Roads that have cost the public millions of dollars are now being blown as dust into adjoining fields. Thus macadam roads are becoming almost as impassable as the mud roads of the back country. That this is a great loss is shown by the report which says that "poor roads make high freight rates. High rates mean an added burden to the consumer. The average cost of hauling over the 2,155,000 miles of country highways of this country is twenty-five cents a ton mile. . . . For hauling over the roads of France, Germany and England, the cost ranges from seven cents for the incomparable national routes of France to thirteen for the worst roads in England. A generous average is twelve cents. The difference is the mud, rut, and hill climbing tax imposed upon all Americans, but first against the farmers." This means a loss, through bad roads, of a billion dollars a year, enough, if saved, to meet the expense of our general government.

How is this nation to secure roads equal to the best highways of the world? In the first



Teaching the people how to build good roads



place by co-operation. A writer in *Appleton's Magazine* shows the failure of the old method of "working out the road tax," under the labor system.

"It has been estimated that the 'labor system' of caring for the roads caused a waste of \$10,000,000,000 during the last century. The work was done under the supervision of salaried officials chosen by the voters. These men were usually ignorant of the most elementary principles of road building, and the elections tended to place the most incompetent men in charge. The official who compelled his neighbors to contribute the full value of their tax in the form of labor, was certain to prove unpopular, and in the next election such a man would usually be replaced by some rival, who was willing to permit the work to be done in a slovenly and inefficient manner. Rotation in office prevented any road official from learning much about road improvement and maintenance, and the most incompetent officials were likely to remain longest in office. Every taxpayer tried to do as little as he could on the days when he was working out his tax, which was measured in days of work instead of

in accomplishment. Thus the 'labor system' directly encouraged incompetence and shirking."

Co-operation can be carried on in four ways: Cities and villages building their streets and boulevards according to a definite plan; model county systems; state aid and supervision; and national aid and instruction.

According to the suggestion of the Secretary of Agriculture, the roads of a county should be built according to a pre-determined and unified system, based upon a most careful investigation of materials, amount of traffic, revenue available, methods of construction adapted to local needs, organization and administration, and all factors entering directly or indirectly into the road work. A plan was inaugurated during the past year whereby the most competent engineers of the Office of Public Roads were assigned, upon request of county authorities, to make such an investigation and to prepare for the future use of the county road authorities an exhaustive and detailed report with plans, estimates, and recommendations indicating the location of all materials, and advising which should be used, indicating the



The government is building good roads

roads that should be improved and the method and cost of improvement suggested, needed changes in organization and in methods of administration, and in short affording a guide for future county road work. This method was carried out last year in Los Angeles County, California, and on the strength of the report of the expert, the people voted \$3,500,000 in order to build a most perfect system of highways throughout the entire county. State aid and supervision of public roads is gaining every year. New York has voted to spend \$50,000,000 in ten years in building 7,500 miles of macadam road. The counties and towns to spend an equal amount, the town fifteen per cent. and the county thirty-five per cent. Pennsylvania has authorized the expenditure of \$6,000,000 in six years with an additional \$1,500,000 from towns and counties. State aid, state co-operation or supervision in construction of good roads is found in nineteen other states. A writer in *Collier's* sums up the good results of this movement for better roads:

“To the farmer these roads mean that he can drive with triple the load that his horses

drew before, and that, at any season of the year, under good maintenance; that he will save in wear and tear and time two-thirds the cost of his wagon transportation; that he will gain in social comforts, in facilities for the education of his children, in ease of contact with the rest of the world through free mail delivery, and in other ways that will enhance the attractiveness and opportunities of his life. To the driver of horses or automobiles for pleasure they will mean a boom that should add greatly to the popularity of road travel in the Empire State. Amendments to the various laws relating to highways have given to the state engineer such control over the maintenance of the roads improved with state money that much better results are assured in keeping them in condition than was possible under the old system of go-as-you-please, with all authority in the hands of untrained highway commissioners and road overseers."

There is a strong movement toward national aid for road building, one suggestion being that the nation spend \$8,000,000 for three years to be divided among the states according

to population, no state, county or town receiving any help except as they contribute an equal amount, the aim being not wholly to build the roads, but to stimulate the people locally to build better roads. This is a small amount for the nation to spend in comparison with France, which alone spent \$350,000,000 in road improvement within an area less than the size of Texas.

It is fortunate for this nation that the framers of the Constitution inserted the clause, "to promote the general welfare," thus making it possible for the nation to do more of the things that are necessary for the good of all the people.

Our central government is actually building roads, on the national reservations, and reclamation projects, and in the parks and forests, and it is also teaching over one hundred communities in all parts of the country by giving them a piece of road as an object lesson. Whenever a request is made, an expert engineer, foreman and machine operator are sent from Washington.

The chemists of the Department make laboratory tests of material, and a short piece of road is built in a thoroughly scientific manner.

These object lesson roads serve to teach local officers proper methods of building and also stimulate public sentiment in favor of good roads, so that the money needed for their construction is forthcoming in the community. More than this, in order to prepare engineers for county and city work, the Department accepts students for one year's training, thus helping to spread the nation's ideals as to good roads.

A department of work which has naturally fallen under the federal administrative system is that of the weather bureau. "The weather for tomorrow" is of more than passing interest, for on accurate forecasts of storms depends the success or failure of shipping and harvest. It is estimated that the system of storm signals on the Atlantic coast saves \$3,000,000 annually in preventing wrecks or disasters. The forecast of a cold wave during one winter, it is estimated, saved shipping of perishable merchandise valued at nearly four million dollars. The record of temperature through a series of years is of great service to those who are considering the planting of trees and crops, which are drought or cold resistant.

The director reports that, at the central office of the Weather Bureau in Washington, D. C., is kept a collection of slides, from which loans are made to station officials when they desire to give illustrated lectures of a public nature. Many such lectures are given to teachers at summer institutes, normal schools, colleges, or public gatherings, and have proved very popular.

The health and comfort of school children demand constant consideration, continues the report of the Weather Bureau, and the daily forecasts are carefully considered in school administration. During, or on the approach of, inclement weather it is common for school superintendents to consult the weather forecasts and warnings or to telephone to the local office of the Weather Bureau for advice in planning to dismiss the school for the day or prepare for a double session. In the larger cities especially the schools are all connected by telephone and arrangements can either be quickly made for a double session upon the advice of the local forecaster, or the schools can be dismissed. In the rural districts the farmers' telephone lines place the warnings

of heavy snow, blizzards, cold waves, etc., at the disposal of the country school quickly and without expense, since the forecasts are in most instances distributed free to their patrons by the telephone companies. The janitor, too, watches the forecasts closely so that he may not be taken unawares by rapid changes in temperature and thus let the rooms become too cold or too warm for the health and comfort of the pupils. He needs also to take account of the conditions of rain or snow in planning his work. Sometimes it becomes advisable to close the schools entirely upon receipt of Weather Bureau information. Thus on the western prairies the schools may be closed when a blizzard is expected; in New England or elsewhere, when heavy snow is on the way; in the far south, when snow sets in to continue until the ground is covered, so that the children may join with their parents in frolicking and enjoying to the utmost the unusual pleasure. In the fruit district of California, where thousands of tons of raisins, apricots, prunes, etc., are dried outdoors in the sun, the schools are closed upon receipt of a rain warning, in order that the children may at

once be put to work covering up the trays of fruit to prevent loss.

Modern methods of teaching in the public schools provide an important place for weather study the local officials granting liberal use of the publications of the Weather Bureau. During the school year a million or more children of the public schools make weather observations and study the daily weather maps and forecasts.

In order to "*promote the general welfare*," President Roosevelt, while in the executive office, appointed a commission to investigate country life, and to learn what was necessary to promote the new social life of the farm, that in the rural homes there might be found the comforts and luxuries for the lack of which the young people have forsaken the farm for the pleasanter life of the city. In his message, he said:

"It is especially important that whatever will serve to prepare country children for life on the farm and whatever will brighten home life in the country and make it richer and more attractive for mothers, wives, and daughters of farmers should be done promptly, thor-

oughly, and gladly. There is no more important person, measured in influence upon the life of the nation, than the farmer's wife, no more important home than the country home, and it is of national importance to do the best we can for both. . .

"The farmers have hitherto had less than their full share of public attention along the lines of business and social life. There is too much belief among all our people that the prizes of life lie away from the farm. I am therefore anxious to bring before the people of the United States the question of securing better business and better living on the farm, whether by co-operation between farmers for buying, selling, and borrowing, by promoting social advantages and opportunities in the country, or by any other legitimate means that will help to make country life more gainful, more attractive and fuller of opportunities, pleasures, and rewards for the men, women, and children of the farms."

In transmitting the report of the Country Life Commission to Congress, President Roosevelt recommended three methods for uplift of the countryside:

"First, effective co-operation among farmers to put them on a level with the organized interests with which they do business.

"Second, a new kind of schools in the country, which shall teach the children as much outdoors as indoors, and perhaps more, so that they will prepare for country life, and not as at present, mainly for life in town.

"Third, better means of communication, including good roads and a parcels post, which the country people are everywhere and rightly unanimous in demanding."

While the report of the Country Life Commission has centered the thought of the nation upon the needs of the country home, yet the enrichment of life for the farmer has been in progress for many years. The use of water power and electricity applied to machinery, saves drudging and gives time for thought. Rural delivery, telephones, and trolleys keep the farmer in close touch with the world. The consolidated school unites in one the little red school-houses of the sparsely settled regions, and the Union High gives the boy and girl a better education than can be

obtained in the different environment of the city. Good roads make for neighborliness. Traveling libraries and short courses for farmers and their wives bring culture and refinement to otherwise barren lives. The farmers' bulletins, sent so freely by the government to every country home are not alone useful to the man behind the plow, but through them the nutrition experts teach the woman in the kitchen the nutritive value of all foods and the method of preparation which will produce the greatest food values for body and brain. In fact, while this nation under its Secretary of Agriculture has done much for the farmer, it has in no wise overlooked the farmer's wife or his children, and yet rural life must be still further organized and enriched.

In order that one part of our nation may not receive more than another, has not the time come for a benevolent president to appoint a commission on the uplift of city life, especially as it applies to that part of the city where economic injustice is met by charity or the prison? Federal inspection and publicity might arouse a thoughtless public in the

demand voiced by Dr. Devine for "sound heredity, protected childhood, a prolonged working age, freedom from preventable disease and from professional crime, indemnity against the economic losses occasioned by death, accident, illness and compulsory idleness, rational education, normal standards of living, and a social religion."

The signs of the times point not only to a national awakening along the lines of social uplift, but also to a determined effort on the part of the nation itself, in bringing about better social conditions as a prophecy of what the government will do when the United States Civil Service is increased by the creation of many more social professions. Notice how the Retirement Association provides for the care of the employees in the government who might be injured by accident or worn out in service. While the insurance benefits of this mutual association go only to members, still the agitation which it carries on for universal pension will soon bring about the enactment of an equitable law providing for retirement of the superannuated and disabled

in the service of the government. This will make employment under the Civil Service far more attractive than it is today.

A great nation like this cannot boast of its greatness alone in terms of billions made or millions saved, but also in greater results made evident through the enrichment of the life of all of its citizens.

CHAPTER IX

In the Life Saving Business

The saving of human life placed in jeopardy has always won the praise of lovers of their fellowmen. The world applauds a hero. The story of what our nation has done in saving life through the heroes of the surf, the men in the Life Saving Service, is recorded in twenty-seven volumes of greater interest than any fiction, for these records tell of brave men who through dark, stormy nights patrol the bleak, inhospitable coasts, ever alert for shipwreck or stranded mariner.

It was in 1837 that an immigrant bark went ashore on Hampstead Beach, Long Island, the residents of the neighborhood being able to rescue but eight persons from the crowded ship. Although this incident aroused intense interest throughout the nation, it was not till ten years later that the matter of life saving was brought to the attention of Congress. The first appropriation was only \$5,000, but as the years went by this amount was steadily increased, new and better equipment was se-

cured, and yet until the old political spoils system was overthrown in 1876, the Service was too often made the dumping ground for men appointed without merit by local politicians. Since that date the Service has become really non-partisan and thoroughly trained men have been employed whose sole work is to save life. Mere figures as to the number of lives saved from a frightful death can never tell the story of the surfmen's labors with lifeboat or breaches-buoy, for his work is not the sailing of a pleasure craft on a summer sea, but the pushing of a heavy boat through breakers, often thickly filled with mush ice, in the teeth of a gale, to reach an ice-coated ship pounding dangerously upon the rocks. Scores of trips must be taken before the last survivor is landed safely on shore. The care of the nearly drowned calls for as great knowledge and tenderness, as the working of the breaches-buoy and the manning of the life boat call for courage.

The government is actually in the business of saving life and when we consider the value of a human soul, we must judge it to be an honorable business. It is well to notice that life saving is not confined to one bureau of the

government. Attention is now being given to the rescue of men after the great mine disasters and the even more important work of safe-guarding the mines, thus preventing the disastrous loss of life and limb. A report by the Geological Survey states that in no country in the world are the natural conditions so favorable for the safe extraction of coal as in the United States, and that in spite of this fact the number of lives lost* per one thousand

*The number of persons killed in coal mines per 1,000 employed in the United States, as compared with the number killed in Great Britain, Belgium and France according to government report:

Year	United States	Great Britain	Belgium	France
1893	2.53	1.55		
1894	2.48	1.60		
1895	2.67	1.49	1.40	
1896	2.79	1.48	1.16	
1897	2.34	1.34	1.03	
1898	2.59	1.28	1.04	
1899	2.98	1.26	.97	
1900	3.24	1.30	1.05	
1901	3.24	1.36	1.16	1.03
1902	3.49	1.24	1.07	.95
1903	3.14	1.27	1.04	.86
1904	3.38	1.24	.93	.89
1905	3.53	1.35	.91	.84
1906	3.40	1.29	.94	
1907	4.86			

United States average death rate for 15 years is 3.11
for every 1,000 employed.

Great Britain's average death rate for 14 years is 1.36
for every 1,000 employed.

Belgium's average death rate for 12 years is 1.06
for every 1,000 employed.

France's average death rate for 5 years is91
for every 1,000 employed.

men employed is far higher than in any other coal-producing country, and further the number of lives lost per million tons of coal produced is exceeded by only one other country. Unless energetic means are taken to counteract this prevailing tendency not only will the death rate in proportion to men employed and tons produced increase as it has done in the last few years, but it will increase at a much more rapid rate.

With the depletion of the thicker and more favorably mined seams of coal, thinner and less regular seams must be worked. This factor will undoubtedly be of the greatest importance within a comparatively few years, and the natural result would be, to greatly increase the death rate. The rising price of timber will have the effect of decreasing the number of wooden props used in mining, and probably will increase the chance of accidents from falls of roof and coal. Another important factor in the mines of the United States is to be found in the nationality of the miners. Most of the men are foreign born, a large proportion of them are unable to understand English readily, and a still larger number are

unable to read or write that language. Some of them are inexperienced and do not take proper precautions either for their own safety, or for the safety of others. This ignorance and neglect become a most serious menace unless they are restrained by carefully enforced regulations.

With the mining of the smaller beds of coal and the gradual development of properties worked with more difficulty, mining conditions in the United States will more nearly assume a position of equality with those abroad, and a great increase in the number of accidents must be expected unless proper steps are taken to remove the causes that have brought about the present remarkably high death rate in the coal mines of the United States.

As a natural result of President Roosevelt's Conservation Congresses, the thought is now turned to the conservation of American men. Said Mr. John Mitchell, at the Governors' Conference:

"In our mad rush for spoils and profits we not only waste and destroy those material resources with which God has so bountifully endowed us, but we press forward in the race,

sacrificing unnecessarily the lives and the comfort of our fellow-beings. It seems to me that the time has come when we should stop for a moment and think—not alone of those inanimate things that make for comfort and prosperity, but also of the men, and the women, and the children, whose toil and deprivation have made and will continue to make our country and our people the most progressive and the most intelligent of all the nations and of all the peoples of the earth.”

Men have been considered by employers of labors as cheaper than machinery and less attention has been paid to the human animal than to the draft horse or the mule in the mine. The government through the Technologic Branch is saying that this waste of life must cease. To this end the nation has set aside \$150,000 to open and operate a great experiment station on the grounds of the arsenal at Pittsburg where a rescue corps will demonstrate for the instruction of mine workers how it is possible to penetrate into mines where explosions have occurred, despite the deadly gases liberated by the explosion, and to bring forth the men who have been entombed within.



The oxygen helmet in life-saving

This station is described as having a large room fitted up so as to represent the difficult passages in a mine after an explosion. All sorts of narrow holes are provided through which the rescuers have to wriggle and passages choked with loose coal over which the corps members work their way. Dummies weighing two hundred pounds each are strewn about and are brought forth as rapidly as efficiency in the rescue work will permit. Helmets, very similar to those used by divers, into which air is supplied from oxygen tanks are strapped upon the backs of the men. The men remain in this airtight room filled with deadly gases for periods of two hours each and work hard without experiencing any bad effects from the poisonous atmosphere about them.

In actual work after mine explosions the use of the oxygen apparatus carried by the rescuers has made it possible to administer air to miners who have been asphyxiated, and to remove them to the outside before life was extinct. The work carried on at these experiment stations by the United States government is not for the purpose of supplying a

corps of trained rescuers for general service in the mines, but merely to teach the mine owners and the mine workers how they may themselves organize an effective corps for every mine and thus reduce to a minimum the fatalities that have heretofore attended all explosions. As a result of this government experimentation, four stations for the training of miners in rescue work have been established recently by the big coal companies and several more are in contemplation.

The Survey hopes not only to be able to continue this good work, but greatly to extend its influence. Speaking of the need for future work, the director of the Branch urges that, the testing of explosives purchased by the Isthmian Canal Commission, Reclamation Service, etc., should be continued without intermission as a protection against possible loss of life due to handling unsafe explosives, and to protect the government against the purchase of inferior or dangerous material. Also that the investigations within mines should be continued in order that the condition and character of the workings in each mine may be definitely known from day to day and from

year to year, so that causes of disasters may be more readily and intelligently ascertained.

He further urges that the establishment of sub-rescue stations in each of the coal mining fields should be pushed with vigor so that types and methods of use of the various rescue apparatus may be demonstrated in all of the coal mines, and that the mine owners may be encouraged to provide themselves with such necessary modern adjuncts to the protection of the lives of their miners. In undertaking this experiment in life saving, the government has made a good start in the work of preventing unnecessary accident and death, yet it is but a beginning.

After the people have educated their congressmen and shown them beyond a doubt that it pays to save human life, then perhaps they will appropriate not only \$150,000 for this purpose but a million and a half annually. By an expenditure of that amount they could save \$35,000,000 each year, as certain of the most conservative of the Old World insurance companies place a cash value of \$10,000 on a human being. If the 3,500 men who lost their lives in the coal mines of this land during

the past year could have been saved, surely that amount could be placed to the credit of the nation. Some day we are going to become as enthusiastic in the saving of life as we have hitherto been reckless in its destruction.

As prevention is always better than cure, that which makes commerce and industry safe is of great value. Under the head of prevention falls the work of the Coast and Geodetic Survey and that of the Lighthouse Board. The scope of the Survey includes the charting of the coasts under the jurisdiction of the United States, and also the Pacific Coast from San Diego to Panama.* Because of this it is possible for mariners to avoid all rocks and shoals and bars and know without doubt the safe course into every harbor.

*LAW PERTAINING TO THE COAST AND GEODETIC SURVEY.

(As modified by act of February 14, 1903.)

The President is authorized to cause a survey to be taken of the coasts of the United States, in which shall be designated the islands and shoals, with the roads or places of anchorage, within twenty leagues of any part of the shores of the United States; and also the respective courses and distances between the principal capes or headlands, together with such other matters as he may deem proper for completing an accurate chart of every part of the coasts.

Once found out by the scientific work of the Coast Survey, it falls to the lot of the Lighthouse Board to maintain such warnings as will guarantee safety to the commerce of the sea. These consist of lighthouse and beacon lights, light ships, gas-lighted buoys, fog signals, post lights, unlighted day beacons, whistling buoys, and bell buoys, to the number of nearly 10,000 separate signals.

Starting with eight lighthouses established by the Maritime Colonies and accepted by the federal government in 1789, this nation has marched to the commanding position of being in proportion to her coast line, "the most perfectly protected country in the world. The enormous coast line of the United States and the difficult character of her inland waters, the great rivers and the great lakes, makes a service which demands every variety and kind of light, of buoy, of day beacon, and of noise-producing apparatus. The whole and main idea of coast illumination is to provide lights at such intervals that the lights shall overlap, and a ship be unable to sail beyond the range of one, along the coast, without coming within reach of another. That there may be no

dark spots in which a ship may be lost is the whole end and aim of the Lighthouse Establishment as far as the seacoast is concerned.”*

The world will never know how many ships have been saved from the rocks and how many human beings have escaped a watery grave because of the signals which, night and day, give warning to all mariners, but that uncertainty is true of all preventive measures, so that one actual rescue may be heralded more widely than the adoption of a measure which may prevent a holocaust.

The Steamboat Inspection Service has much to its credit in preventing disaster. As far back as 1838 Congress organized this Service, providing for the better security of the lives of passengers on board vessels propelled in whole or in part by steam. In 1871, the promotion of the security of life on such vessels

*The Lighthouse Board has adopted a type of acetylene light for the coast of Alaska and eleven gas lighted beacons will be installed at points along the “inside passage” in southwestern Alaska.

Each light will burn without the care of a keeper or any other attention for a period of six months, at the end of which time the supply of gas-producing material may be replenished readily by the visit of a lighthouse tender or other vessel.

was extended to the crews and officers as well as to the passengers. By inspection of hulls and boilers, signal lights, names and numbers, by deciding on the number of passengers to be carried, and in many other ways the nation saves men from possible disaster resulting from the greed or ignorance or incompetence of the owners, pilots, or masters of all steamships.

The rescue of imperiled lives is spectacular as well as humane, whether by lifeline to a ship pounding on the rocks, or by the oxygen helmet, saving the asphyxiated miner from the coal mine. Necessary as this may be, we are as a nation beginning to applaud that work which is now being undertaken, the object of which is the prevention of disease. Health is a national asset, and everything which aids in preservation of health adds that much to the wealth and happiness of a nation. Emphasizing the importance of life and health to a nation, the National Conservation Commission went on record in saying that "at every stage in the growth of our country, strong men grew stronger, through the exercise of nation building, and their intelligence and patriotism grew with their strength. The

spirit and vigor of our people are the chief glory of the republic. Yet, even as we have neglected our natural resources, so have we been thoughtless of life and health. Too long have we overlooked that grandest of our resources, human life. Natural resources are of no avail without men and women to develop them, and only a strong and sound citizenship can make a nation permanently great. We cannot too soon enter on the duty of conserving our chief source of strength by the prevention of disease and the prolongation of life.

“Waste reduced and resources saved are the first but not the last object of conservation. The natural resources have an additional value when their preservation adds to the beauty and habitability of the land. Ours is a pleasant land in which to dwell. To increase its beauty and augment its fitness cannot but multiply our pleasure in it and strengthen the bonds of our attachment.

“In the conservation of all the resources of the country the interest of the present and all future generations is concerned, and in this great work, involving the welfare of the citizens, the family, the community, the state,

and the nation, our dual system of government, state and federal, should be brought into harmonious co-operation and collaboration."

Interest in the preservation of health is ever widening. At the beginning of the last century health was an individual matter. The family doctor was the only health officer for his limited circle of patients, and the poor received but little attention, but the individualistic treatment of disease proved as great a failure as individualism in industry. Co-operation is necessary to success in either case. Health boards in the larger cities gradually undertook the supervision of the health of the cities, especially as it concerned prophylactic measures and the handling of contagious diseases. The existence of disease is more profitable to the physician than its dissipation, and yet in general it may be said of this profession that the doctors have been as zealous in the discovery and application of preventives as they have been in the use of curative measures. Invariably they have worked with the boards of health, in introducing ordinances, enforcing laws and in educating the public in matters pertaining to health.

To the municipality naturally "falls the task of providing for its citizens clean air, clean water, clean food, clean streets, clean houses, and protection from infectious disease. This implies abolition of the smoke nuisance, the closing of sewers, prompt removal of garbage, adequate cleaning of streets, enforcement of ordinances against spitting, maintenance of an absolutely pure water-supply, inspection of meat, milk, and other foods, enactment and enforcement of strict building laws, publication and isolation of infectious disease, support of bacteriological laboratories, distribution and administration of anti-toxin and vaccine, free medical service, and, above all, regular inspection and free treatment for the children in the public schools.

"Modern educators appreciate that because of the responsible position occupied by them, it is their duty carefully to guard the body as well as the mind of the youthful generation entrusted to their charge, as the origin of many of the most distressing diseases can be traced to the school life of the sufferer."

The state of California has recently passed a Health and Development Law which, if strictly

carried out through the public schools, will greatly aid in producing not only a healthy generation but also men and women fully developed in mind and body. Each city now vies with every other in reducing the death and the morbidity rate, but this effort takes money and thus it becomes necessary for a constant campaign of education in order to secure the necessary funds. Sometimes it takes an epidemic to make the people willing to spend large sums of money for the public health. The necessity for pure water is leading many cities to make large expenditures for water supply. Notable among these is Los Angeles, California, which is now spending \$23,000,000 in order to bring to the city the clear, pure water of the high Sierras in a covered aqueduct 217 miles long.

There are many health problems which are far wider than the city. Recognizing this fact, every state has organized a state board of health, the first being organized in Massachusetts in 1869.

“What public provisions for sanitary work had been made before this time in any state, were of a temporary character, to meet

special emergencies. Such had been the case at one time when the city of New Orleans was protected by quarantine against an invasion of yellow fever. This and a few other examples may perhaps be regarded as early indications of the coming of state medicine, and as having had something to do in preparing the way. The Massachusetts board was the first in the country so established and equipped as to be able to do such general good work, as to secure for itself a high and permanent place in the public service. As now seen, this early service was useful in an important way, by furnishing object lessons in practical sanitation to other states and communities at home and abroad."

Thus came in the era of state preventive medicine, a special study being made by each state as to the primal causes of all disease with the object of preventing it. In addition to the state sanitary work, the boards are beginning to give attention to conservation of the vital resources of the nation by seeing that they are not sapped at the root through child labor and the industrial employment of prospective and nursing mothers, or

wasted by the subjection of its adult citizens to extreme hours of labor or bad conditions in mine, shop, or factory.

Co-operating with the city, state and nation, there are a number of great institutions founded by men and women of wealth, where original investigations are carried on for the purpose of finding the cause and cure of specific diseases, such as the Henry Phipps Institute for the study, treatment, and prevention of tuberculosis; the Rockefeller Institute for Medical Research, where a serum has been discovered for the successful treatment of spinal meningitis, and the McCormick Institute for the study of infectious diseases. The insurance companies have united in an effort to secure the preservation and prolongation of human life—an effort actuated by selfish motives, it is true, yet an effort which points to great success when all the nation is at work in the same endeavor.

Disease knows no state bounds, it is nationwide, it is even an international question. While a national health department is inevitable, the fear of a loss of states' rights and an increase of paternalism has retarded the

necessary assumption of watchful care over national health.

The work of the nation in life saving has been an evolution, being greatly increased within the past decade. The general public now readily concedes that, "The function of the national government is to prevent the importation of disease, through strict quarantine at all ports of entry, and the transfer of disease from one state to another, through strict supervision of all inter-state carriers; to disseminate information on every point pertaining to the vitality of the people; and to collect and tabulate vital statistics."

But as yet few realize the great extent of the work for public health which is now being carried on in the great research laboratories, or the extent of the preventive work in Porto Rico, Panama, Guam, Hawaii, and the Philippines, or of the number of workers, equal to an army of men, now employed in national hospitals as scientists and experts on sanitary commissions and international research, on sanitary corps and mosquito brigades, all for the purpose of blotting out disease and bringing about normal life and health.

Professor Irving Fisher estimates in terms of money that the United States could save annually one billion dollars now lost through deaths that need not occur, and at least half a billion through sickness that could easily be prevented, which added to losses from minor diseases would bring the sum to the amount claimed by another expert, showing that every seven years we waste enough through sickness and death "to pay for the Panama canal, to duplicate the army and navy, to deepen the inland waterways, to double our shipping and commerce, to pay our national debt, to abolish taxes, and to put a billion-dollar surplus in the national treasury."

This is surely of such moment that the nation will respond to the greater demands of the time. Our Agricultural Department responds quickly when there is an epidemic among cattle or hogs. Recently much money was spent in investigating and checking the ravages of the disease among horses and cattle caused by eating the loco weed. An equally quick response on the part of the government is hoped for in combating all disease affecting the human race. This is the more important

as shown by Prof. Fisher when he contends that, "Both the length and the strength of man's life are dependent upon definitive conditions, and these conditions are within the power of man to control."

"In the sixteenth century," says a writer, in quoting this report, "the average length of human life in European countries was between eighteen and twenty years. Today, it is between forty and fifty years. During the seventeenth and eighteenth centuries, when hygiene and sanitary science had not yet been born, the rate of increase was about four years per century. During the first half of the nineteenth century, when those sciences were taking their first uncertain steps, the rate of increase was extended to nine years per century. During the latter half of the nineteenth century, when they had attained a fairly robust growth, the rate of increase practically doubled. At the present time, in Germany, where hygiene and sanitation have been highly developed and wisely applied, the rate of increase is twenty-seven years per century; while in India, where practically nothing has been done along these lines, there has been

no increase at all. In the world at large man's life has lengthened and his death-rate has fallen."

If life can be lengthened as is claimed on an average of eight years by the use of pure water, pure milk, and pure air, throughout the land, has not the question of health and sanitation attained a position of vast importance in the nation?

In his report to the Second Reclamation Congress on Sanitary Regulations governing construction camps, Mr. M. O. Leighton, says:

"Sanitation, according to the popular idea, is a science which has no pecuniary utility—that is, the purposes are entirely humanitarian and have little or no relation to money values. This idea is erroneous. There are phases of the sanitary question which are quite as important from the financial as they are from the purely social standpoint. Almost nowhere is this better exemplified than in connection with great construction camps.

"The physical condition of the laborer is the measure of his day's work. Whether his occupation be active or sedentary, his

achievements are finally controlled and limited by his relation to physical ills. The difference between the achievements of a person in good and in poor physical condition is a matter of common observation. When this difference applies to a whole community its total is increased in direct ratio to the number of persons, and in a camp of several hundred workmen it becomes a serious item. It may represent the difference between success and failure in the completion of a piece of work within a specified period, in the character of the work, or in its permanence after completion.

“It is only a step from the poor physical condition that is responsible for indifferent labor, to the acute illness during which all productive labor ceases. A general epidemic of acute disease in a construction camp is disastrous. Disease rather than engineering difficulties has been the cause of absolute failure in certain great projects. The earlier attempt at the construction of the Panama Canal is a notable instance. In short, sanitation is one of the vital necessities in construction camps.”

So important is the question of health to the efficiency of the force that not only the ordinary precautions are taken in all government construction work, but the following clause is incorporated into the specifications of each contract advertised under the Reclamation Law.

“The use and sale of intoxicating liquor will be absolutely prohibited on the work except under the direction and supervision of the engineer in charge, or his agent, and then only for medicinal purposes.”

The story of what has been done by the government must be told in order rightly to judge of the extent to which our government has gone in the matter of life saving.

The Navy Department has its bureau of medicine and surgery under a surgeon-general. This bureau maintains a large medical corps assisted by a hospital corps and women nurses, whose duty is to maintain the highest health efficiency possible among both naval officers and men afloat and ashore. Special attention is given to the study of disease common to tropical countries with reference to guarding the health of the navy while sailing or

stationed in tropical lands. The medical officers are able to be useful to local officials in Porto Rico, Hawaii, Guam and Samoa, and the Philippines. The naval hospitals at home and abroad are not only houses of healing, but laboratories for research as well, demonstrating that the naval establishment is not for killing men only, but is maintained also in the interest of human life and health.

"Just as public opinion is throwing its weight in the balance toward the cause of universal amity and is guiding the action of representatives in the great peace movement," says the surgeon-general, "so this same potent influence is being irresistibly felt in humanitarian and health movements, and is determining the progress of the world in all that makes for the physical, mental, and moral uplift of mankind."

The health of the United States army is looked after by its medical department, and like that of the navy it concerns itself with more far-reaching questions than the handling of disease among the soldiers, for it deals with prophylaxis as well as with cure. Since the Spanish War, attention has been especially

directed toward preventive measures, since as a result of this war there was a great increase in malaria and yellow fever, tuberculosis, typhoid and venereal diseases, all of which yield readily to preventive treatment. The methods employed in combating these diseases will be described later in discussing health conditions in Porto Rico, Panama, and the Philippines, as well as at home.

The medical department of the army maintains a board for the study of tropical diseases, and the published results of their investigations are of great aid to all health boards in our insular possessions.

But the greatest results in the increase of national health are to be found in the Public Health and Marine Hospital Service, the nucleus of the future department of health and education. Surgeon-General Walter Wyman, at the head of this splendid service, attached to the Treasury Department, tells of the splendid work done in the interest of life saving. In 1798, Congress passed an act for the relief of sick and disabled seamen, thus establishing the Marine Hospital Service. Duties of a public health nature were gradu-

ally added until in 1902, the name was changed to the present one "The Public Health and Marine Hospital Service." For the performance of the duties of the Service, the personnel numbers 118 commissioned medical officers, three special scientists in the Hygienic Laboratory, 255 acting assistant surgeons, 47 pharmacists, and 851 employees.

While the men of the Life Saving Service, the lighthouse establishment, the army and navy are guarding and protecting our coasts from foreign invasion, these heroes of the microscope are prolonging and protecting human life by a constant warfare on germs and microbes which might otherwise come swarming in from Europe, Asia, and the tropical islands. These are men to be honored, and some of them should have their names engraved in the Hall of Fame.

The work of the Service consists of maritime and interstate quarantine, medical inspection of immigrants, medical care and treatment of sick and disabled seamen, medical assistance to other branches of government, scientific research in public health matters, suppression of epidemics, the regulation of the

manufacture and sale of serums, antitoxins and analogous products in interstate commerce, the collecting of morbidity statistics, and sanitary information, and co-operation with state boards of health. A broad field of work, yet growing broader every year. General Wyman reports that in the laboratory of the Public Health Service, there is a corps of men consisting of bacteriologists, pathologists, zoölogists, pharmacologists and chemists constantly employed at research work having a direct sanitary bearing. In addition it is through this laboratory that the manufacture and sale of viruses, serums, toxins and analogous products are regulated. Institutions manufacturing these articles, at the present time so important in the treatment of the sick, are inspected at frequent intervals, and the products themselves are bought in the open market and examined for purity and strength. Thus the consumer, who in this case is the helpless sick, is protected, and the physician can intelligently and with a feeling of security prescribe an article of assured efficiency.

To this end standard units, official for the United States, have been established for

diphtheria, and tetanus antitoxin so that the strength of all makes of these products sold in interstate commerce is based on a common standard and the labels on the package show correctly and in known terms the therapeutic efficiency of the contents. Previous to the establishment of these standards far different conditions existed. At this laboratory much work has been done on public health subjects, of which the following will give some idea of the character: The cause of the prevalence of typhoid fever in cities; the relation of milk to the public health; the cause and effect of the prevalence of hookworm disease in certain of the southern states; the best methods of use and relative efficiency of disinfectants and germicides; the chemistry of milk in its relation to infant feeding; the effects and therapeutic uses of drugs; bacteriological studies in connection with quarantine and quarantinable diseases; studies in malaria, yellow fever, Rocky Mountain fever, milk sickness, and many other sanitary investigations of a similar nature. Here also is prepared the virus used in the prevention and treatment of rabies. Persons living in



View of Fort Stanton, New Mexico

the District of Columbia, bitten by rabid animals, or those unable to come to Washington are treated upon request of local health officers to whom also the therapeutic virus is sent for treatment at a distance when asked for. The service also maintains a leprosy investigation station on the Island of Molokai where this disease, of so much importance to our island possessions, Hawaii and the Philippines, is being studied, and where investigations will be continued until the best means of treatment is found or a specific cure discovered.* The facilities of this laboratory are offered to municipal and state health offices as well as offices of the corps, and of other departments and of neighboring republics. On request of states, trained officers are sent to investigate and suppress epidemics, when the local forces are unable to control the situation.

The service maintains forty-three quarantine stations along all the coasts and in the Insular Possessions, "and vessels coming to these ports from foreign countries are boarded and inspected before entering the port, and

*From the Annual Report of the Service for 1908.

if quarantinable disease is found on board, or if they have come from an infected port without having taken proper precautions, as specified in the quarantine regulations, the vessel is detained for observation, disinfected or otherwise treated."

An important and interesting portion of the quarantine administration, according to General Wyman, is the fruit-port inspection service, medical officers being stationed in ten of the principal fruit ports of Central and South America, detailed by the President in the offices of the American consuls, to insure such care in the sanitation of the vessels as to warrant their admission at the southern ports of the United States without detention, which would destroy the fruit. The effect of these officers in the fruit ports is most salutary, greatly enhancing their sanitary condition.

In addition to the medical inspectors in fruit ports there are medical officers at the principal ports of Japan and China, one at Calcutta and one at Naples. Besides their quarantine duties these officers also examine departing emigrants.

Bulletins of public health are issued weekly

and in addition to these, short bulletins are sent to health officers and others whenever requested. No more important work falls to the Service than that of medical inspection of immigrants, thus saving the introduction into the country of many infectious and contagious diseases. In addition to the inspection at Ellis Island, the Service maintains large hospitals there for the treatment of the sick among the newcomers.

The surgeon-general is required by law to hold a sanitary conference at Washington of the state boards of health. At the Fifth Annual Conference there were twenty states and the District of Columbia represented. The transactions are printed in a separate volume which may be obtained by application.

International meetings relating to the public health are occasionally held, such as the Third International Sanitary Convention of American Republics held in the City of Mexico; the International Congress on Tuberculosis held in Washington, September, 1908, at which was presented an exhibition relating to tuberculosis, prepared by the scientific bureaus of

the several departments, and also the International Congress of Hygiene and Demography, meeting every three years—in Berlin in 1907 and at Washington by invitation of the President in 1910.

The Service maintains twenty-one marine hospitals and 123 marine hospital stations for free treatment of sick and disabled sailors together with a reservation at Fort Stanton for the tubercular sailors.

The surgeon-general recommends in his report the establishment of a school of hygiene connected with hygienic laboratory of the Service, to which accredited state and municipal health officers might be assigned for a well-defined course of research and special instruction. The plan would include the presentation of authorized diplomas, or title of doctor of public health. Without doubt the plan suggested would greatly strengthen state and local health administration, and the cost to the service would be insignificant.

This might include a special course, the graduates from which would receive the title of Doctor of Prophylaxis, for in the future there

is sure to be a great demand for men trained in the profession of preventive medicine.

The national government does not content itself with collecting and publishing statistics and information regarding the great national diseases, but it is engaged in the actual work of driving these fearful plagues from the land. Should a foreign foe attempt to land on our shores, a foe strong enough to slay 200,000 of our citizens, it would be met by an armed force of sufficient strength to repel it. Even though this effort should call for the expenditure of millions of dollars, Congress could appropriate the money, for it has the power, under the Constitution, "To provide for the common defense and promote the general welfare of the United States." Tuberculosis, "that captain of the hosts of death," which is the cause of the world's greatest mortality, lays a tax upon the nation to be measured only in terms of billions of dollars. As the right of defense against an armed force is granted by the Constitution, then the nation has the same right to war against tuberculosis for this disease is indeed a foe, inasmuch as it annually slays over 200,000

citizens. This white plague can be combated also under the general welfare clause of the Constitution, for the general welfare of the nation is wrapped up in the protection of the lives and the health of its citizens, and in the raising of all its people to their highest economic efficiency. Because of the evident truth of this statement, it is readily granted that "the nation ought to be interested aggressively in whatever tends unnecessarily to handicap the economic value of the lives of its people, and in whatever tends to vitiate and deteriorate and to make less efficient the lives of those who are the builders of the nation." What this government has done to prevent and cure tuberculosis among its soldiers and sailors might be extended to the other needy ones among its citizenship. For its soldiers sick with tuberculosis, the medical department of the army has arranged a sanatorium on a tract of land six miles square at Fort Bayard, New Mexico. The Naval Bureau of Medicine has chosen Fort Lyon, Colorado, for its sanatorium for the officers and men of the navy. These locations are remote from the evil influences of large cities, and when

beautified will make homelike places, offering many physical comforts to those who are seeking health.

The Public Health and Marine Hospital Service maintains a sanatorium for all consumptive seamen, on a beautiful reservation at Fort Stanton, New Mexico. Here the commanding officer has eliminated all spirituous liquors from the materia medica of the sanatorium. If the government can care so thoughtfully and successfully for some of its citizens, why can it not do so for other tuberculosis sick, segregating them and thus saving many from possible infection.

The Interior Department operates another reservation, given entirely to the cure of the nation's sick at Hot Springs, Arkansas. Here is situated the Army and Navy General Hospital with over 700 patients treated annually. While the water from these wonderful medicinal springs is sold to a number of private hotels, it is furnished without cost to the hospital and to the free public bathhouse, where the indigent sick from all over the land can come to bathe in the healing waters. Some seven hundred daily make use of this bath house.

*Typhoid is another interstate, even international disease, for the source of contagion may be across the state or national line, therefore falling naturally under the care of the nation. The government has undertaken the education of the public as to the possibility of the elimination of this disease by showing it to be entirely preventable. The campaign of education is now on and millions of leaflets on prevention of disease are being issued by the government and state boards of health. Considering the deaths from preventable diseases, it has been estimated that four hundred thousand of every million deaths result from diseases which could easily have been prevented had proper sanitary and hygienic precautions been taken.

Inasmuch as typhoid fever is an easily preventable disease, it has been said, with truth, that every case of typhoid fever is evidence of almost criminal neglect on the part of someone.

The financial waste from this disease is shown to be great, when an average state, like Indiana, can report that typhoid fever costs the

*See Appendix for description of typhoid and the method of treatment.

people within its boundaries over \$5,000,000 annually. This waste is calculated upon lives unnecessarily lost, time lost through sickness, and costs of drugs, nurses, and doctors.

Through investigations carried on by the government specialists, it has been shown that typhoid is more than a water-borne disease, for milk and flies are carriers and their investigations have also shown that recovered patients may carry about with them the source of contagion for many years.

"The human being distributes typhoid bacilli during the disease, during convalescence, and frequently for years after as carrier cases, and indeed some carrier cases seem never to have had typhoid fever at all—it may be that such cases have had the disease so mildly as to be overlooked." This new discovery demands post-typhoidal treatment in all cases.

The milk supply is such a source of disease, not alone of typhoid but of many infantile troubles, that in the interest of the babies of the nation, the government has joined with states and municipalities in a campaign for clean milk. It has also undertaken a strong

campaign against the house fly, which it names the "typhoid fly," although dysentery, cholera morbus, tuberculosis, Asiatic cholera, and certain infectious eye diseases, as well as typhoid fever, are among the maladies known to be distributed by the house fly.*

Beyond question the house fly was mainly accountable for the outbreaks of this deadly disease in our military camps during the war with Spain, in 1898. Every regiment developed typhoid within eight weeks after assembling in the encampments, and in every one of the camps, in the north as well as in the south, the malady became epidemic. One in every five of our soldiers in the national encampments, during this war, developed the disease, and of the total deaths more than eighty per cent were caused by typhoid. It was the flies that were mainly responsible. Had every colonel rigorously enforced the simple sanitary measure of making the soldiers use plenty of dry earth in the sinks, the several hundred

*The government prints a pamphlet on household insects which tells much about the house fly, as well as other pests. It is Bulletin No. 4, new series, Department of Agriculture, Division of Entomology, and can be had for the asking.

deaths and several thousand cases of typhoid might have been prevented.

Flies lay eggs in various kinds of filth, as for instance, rotting meat or vegetables, but the principal breeding place is the horse stable. A fly will lay 120 eggs at one time. The eggs hatch in a few hours, and the fly matures in ten days.

The method for the prevention of the breeding of flies is to keep a constant watch that no filth is left exposed anywhere about the place, and to clean out the horse stable thoroughly every morning, putting the refuse in a covered receptacle so constructed that newly hatched flies cannot escape, and therefore die for lack of water.

The health authorities of New York City estimate that "the anti-fly work, when properly carried out, will reduce the typhoid deaths in the metropolis from 650 to about 360 a year, and diarrheal deaths from 7,000 to about 2,000. This saving of more than 5,000 lives per annum will be accompanied by an additional saving of 50,000 cases of serious sickness."

For some time foreign armies have used

vaccination as a means of immunizing against typhoid. A board of medical experts have reported favorably on the question of vaccination, and as a result this method will be used by the medical corps of the army. This proves to be a harmless way of gaining protection, and is given as follows:

“A man receives a few drops of the prophylactic material by means of a hypodermic injection into the arm, and after a few hours he will probably have a little fever or headache, and a tender spot on the arm. It has, however, the great advantage over vaccination against smallpox, that the tender spot on the arm never becomes sore. It is, in fact, a simple, clean, and harmless affair, and a mere trifle compared to the danger of life, or the long illness and expense of an attack of typhoid fever.”

If the government is warring against flies, the battle is fiercer against mosquitoes. Malaria and yellow fever have claimed their victims by millions throughout the centuries, and mankind seemed helpless before the scourge. It was thought that malaria was *mal-aria*—bad air—caused by miasmas rising

at night from swamps and bogs. Therefore, it was believed that the people who lived in such regions would surely have malaria or ague. The yellow fever came, they knew not how, and the people in a panic could only fight it blindly, fearing the worst. The cause of both of these diseases was found to be the mosquito.

An English commission of doctors was sent, to camp for a year in the deadly swamps of the Pontine Marshes in Italy, a region always noted for malaria. By protecting their faces with veils, and their hands with gloves, and by living in carefully screened camps, they were able to avoid the bite of the mosquito, with the result that not one of the commission became infected with malaria. By many other similar experiments, it was decided by scientists that malaria is conveyed to human beings only through the agency of the *anopheles* mosquito. Mosquitoes become infected by biting persons who are already affected with the disease.

Mosquitoes can be destroyed by removing all stagnant water; by deepening ponds and pools which cannot be drained or filled up, and introducing fish; by clearing away obstructions

and weeds from gutters and ditches to permit of free escape for storm water; by destroying the larvae with oil in situations where more radical treatment cannot be applied; by destroying adult mosquitoes which hibernate in cellars, drains, cesspools, and other places by the use of the smoke of burning insect powder, and by brushing them out and consuming them by fire.

When the government carries out the plan of draining the 80,000,000 acres of swamp lands in the United States, it will not only help in home making, but will go far towards expelling malaria from the land.

If the *anopheles* mosquito comes laden with the germ of malaria the *stegomyia* is more to be feared, for the bite of the female may bring the dreaded yellow fever.

The city of Havana for several centuries was the yellow-fever pest-hole for infecting North America; and every summer our southern cities were in fear of this undesirable Cuban importation. As soon as the Spaniards were superseded by our army, Havana was cleansed of its dirt and became a healthy city, except that it still produced yellow fever.

Then came that wonderful exhibition of heroism by three young United States' army surgeons. Samuel Hopkins Adams in a magazine article, describes the work of these memorable heroes:

"Reed, Carroll, and Lazear established near Havana in 1900, an experiment station to test on human subjects the mosquito theory suggested by Finlay and earlier observers. Two adjoining houses were selected, presenting precisely the same conditions of hygiene, sanitation and temperature, and in these squads of volunteers were domiciled. In one was put the soiled sheets, pillows, blankets from the hospital at Havana, in which yellow fever patients had slept and died. This dwelling was carefully screened to prevent the entrance of mosquitoes. In the foul bedding the volunteers slept for two months. Not one case of yellow fever developed among them. The other house was kept as clean as sanitary science could make it. Everything used by the men who volunteered for this part of the work was sterilized. Into the room were introduced specimens of the *stegomyia* mosquito, which had bitten yellow fever patients. Of

the occupants of this room, fifty per cent developed yellow fever. Finally, men who had lived unaffected for twenty days amidst the foul surroundings of the first establishment allowed themselves to be bitten by the infected mosquitoes, and seventy per cent of them took the disease. No low order of courage was required in those who submitted to either test. Lazear died, a martyr to humanity, and is remembered by one where the lesser heroes of our Cuban battlefields are acclaimed by thousands. Carroll barely escaped with his life, and Reed shrinking from no peril which his companions braved, came through unscathed by virtue of some natural immunity, only to die of another illness in the following year. At the price of martyrdom for several men (for some of the volunteers died) of patience and peril and suffering for the others, it was proved in the utmost detail that only through the bite of an infected mosquito does yellow fever attack the human subject; that the fever-bearing insect itself becomes infected only by biting a patient in the first five days of disease; and that not until twelve days thereafter can the insect

transmit the infection. Reduced to its practical terms, this means that yellow fever can exist only where the *stegomyia* breeds."

This being proven, the sanitary superintendent of Havana, Col. W. C. Gorgas, destroyed the mosquitoes and drove out yellow fever. Later the battle against yellow fever in New Orleans showed that it was within the power of men to rid the world of this dread disease.

With the Havana experience, Colonel Gorgas was just the man to be sent as chief sanitary officer to the Panama Canal. On the Isthmus, yellow fever had wrecked De Lesseps' enterprise. It had put a Chinaman under every tie of the Panama Railroad; it had taken the life of many a Forty-niner on the way home with gold from California's mines. The ignorant public was impatient, waiting for the dirt to fly on the great canal, but Colonel Gorgas insisted that health must have first consideration. After the zone had been cleansed, sanitary houses built and all buildings well screened from mosquitoes, the *stegomyia* destroyed, and the *anopheles* restricted by swamp drainage, then the work of

canal building might be undertaken without fear of disaster through disease. The results show that this officer was not only humane, but wiser than most of his critics, for the miracle of sanitation accomplished by Colonel Gorgas has "transformed the Canal Zone from a region reeking with disease and death to a beautiful park, cleared of its jungles, drained of its swamps, with its mosquitoes practically exterminated and yellow fever stamped out."

A sample report made to the Isthmian Canal Commission for one month in 1908, is encouraging:

"Taking the total population, in 1907, we had a population of 92,494, with 278 deaths, giving us a yearly rate of 36.07 per thousand. In 1908, we had a population of 113,269, giving us 202 deaths with a yearly rate of 21.40 per thousand, an improvement of 15 per thousand in the rate of the whole population. Twenty-one and forty hundredths is the lowest rate we have ever shown for our whole population, and is about the rate of New York City. It is somewhat better, in general, than that of Washington, Baltimore, or New Or-

leans. Taking up individual diseases, the showing is equally good. We had only one death among the employees from dysentery, two from malaria, and not a single death from typhoid fever. Among the 8,000 white Americans in commission quarters, which includes 2,000 women and children, we had no deaths from disease of any kind." Colonel Gorgas believes that tropical countries can be made perfectly safe for the white man where modern sanitary methods are introduced.

The further story of life-saving through sanitation in the Philippines must be told in another chapter, mention being made here only of the work done to prevent leprosy, the plague, and the hookworm disease. The segregation of lepers began in May, 1906, and has steadily continued. Of the 4,000 estimated to exist in the islands, only about 1,000 remain to be collected and transported to the Leper Colony at Culion. In the provinces which have now been entirely freed from lepers more than 300 new cases of leprosy formerly appeared annually. The government reports that now not more than fifty new cases appear, which fact alone would more

than justify the policy of segregation. It can be positively stated that not only has the increase in the number of lepers been permanently checked, but a steady decline has begun and will continue if the present policy is adhered to.

That the government is determined to blot out leprosy—Asia's ancient disease—is shown by the building and equipping of an investigation station at Molokai in the Hawaiian Islands, where the Territorial Board of Health assemble all those affected with that disease. It is hoped that by scientific experimentations with the leprosy bacillus, some way may be found to check the ravages if not to cure those who are already lepers.

The bubonic plague calls for national aid for it is an imported disease and the danger of spreading beyond the coast states is so great that all the forces of the nation must be called in to stay its progress. The plague once swept over Europe and Asia, devastating vast regions. When it started from China on its latest death-dealing journey it was met by the knowledge that the only possible method of inoculation is through the bite of the flea, from a rat or

other rodent afflicted with the disease. When the rats die the fleas leave the body and make any man or animal their host. The way to check the disease then is to destroy all rats, not only those on ships coming from infected countries, but every rat in the entire nation.

When the plague reached the Pacific coast, the states called on the nation to help in exterminating the rats. The response was hearty and months were spent in the warfare against the rodents until there was no longer any trace of the disease on the mainland. During the year 1906, there were over a million cases of plague in India with 860,000 deaths. China had 500 cases with 450 deaths, and it is never absent from a score of other lands. Every ship sailing from affected ports is liable to carry rats which are sure to escape by the mooring ropes or in merchandise. Thus a national quarantine must be continuously maintained until all the world unites in destroying the rodents and with them the fleas which do the mischief.

Millions of people in all lands through all the ages have suffered from anemia, chronic debility, and lack of efficiency, and have not

known the cause. It is only recently that the discovery was made that it is the parasite called *uncinaria* or hookworm in the intestines which has robbed millions of children in this land, in the Philippines, in Porto Rico and in all other lands, of their birthright of a healthy childhood, making them dwarfed in mind, prematurely old, and yet undeveloped.

This small worm after sucking the blood and leaving toxin, a constant poison, lays its eggs which are passed from the bowels; and in regions without proper sanitary conveniences these eggs are hatched on the ground and when the children walk barefooted, they are bitten by the little worms, causing ground-itch. They pass into the circulation through the lungs, thence into the stomach, then to the intestines, where they become the cause of anemia, making the child puny and as the disease progresses, showing such symptoms as these as described in a state health report: "The eyes are a little swollen when the child gets up in the morning. Later, the feet and legs begin to swell and then the bloating becomes general. The protruding abdomen is tender, shortness of breath supervenes, the

whites of the eyes become more and more blanched, the lips more and more livid, the ears more and more translucent, the bloating more and more pronounced, the headache more and more constant, the child more and more helpless, till, in some cases, death relieves the little sufferer; in others they continue, not to live, but to exist."

It is recognized that throughout the United States there are two million persons afflicted with this disease who can not only be cured but may be brought back to normal life and efficiency by giving the patient proper doses of thymol to drive out the worm, and by better sanitation, which will in the future prevent the common custom of soil pollution by those who are ignorant of the consequences.*

HOOKWORM.

*John D. Rockefeller has recently given \$1,000,000 for the study of the hookworm disease. This fund has been placed in charge of a Commission selected by himself. The members of this Commission include—Dr. William H. Welch, professor of pathology in Johns Hopkins University; Dr. Simon Flexner, president of the American Medical association; Dr. Charles W. Stiles, chief of the division of zoology, United States public health and marine hospital service, and discoverer of the American species of hookworm and the prevalence of the disease in America, and Starr J. Murphy, Mr. Rockefeller's counsel, and John D. Rockefeller, Jr.

Through proper prophylactic measures, our nation in co-operation with state and local boards of health, may in the next few years change conditions in entire neighborhoods, save thousands of baby-lives and bring multitudes to greater power and efficiency of life.

The review of that which is being done by the nation to prevent disease and to build up the health of the people shows that this land has indeed entered into the work of life-saving, but that it has not gone far enough is the belief of many scientists and social workers. A committee of one hundred has been formed to press upon Congress the necessity of creating a new department to be formed by concentrating the health agencies and functions now scattered through the Department of the Interior, the Agriculture Department, and the Treasury Department, with the ultimate aim of forming a Department of Health and Education. Many other methods now in vogue in other countries might well be adopted here. A permanent committee on alcoholism ought to do much toward finding out the facts regarding the evil results of the use of

alcoholic liquors and through proper publicity, create a public sentiment that would demand the suppression of a business which is causing death, disease, and disaster on all sides.

It is suggested that the health office of the City of Washington might be transferred to this new department in order that our national capital may be made the pride of the country as to healthfulness—a kind of “spotless town”, with model tenements, model street cleaning, model water and milk supply, model system of reporting and controlling epidemics, and, as a consequence of this, a death-rate below the best records yet reached in American cities. It is believed that as a result of such a condition at the national capital, hundreds of other cities would begin to clean up.

In addition, there would be in this department of health, a bureau of infant hygiene, expert physicians and scientists devoting themselves to research, and experiments, that they might be able to decrease the present appalling waste of baby-life. There would be a bureau of sanitation, and a bureau of pure food. It is also suggested that a bureau of health in-

formation might be added as a sort of clearing house where all the news of the various bureaus would be given out to the public through trained and specialized popularizers. Also a bureau of research, and bureaus that would keep a national registration of physicians, druggists and drug manufacture, and one that would deal with problems of quarantine and labor conditions.

We are rapidly coming to believe with Theodore Roosevelt, when, speaking as President of the United States, he said:

“Our national health is physically our greatest national asset. To prevent any possible deterioration of the American stock should be a national ambition. We cannot too strongly insist on the necessity of proper ideals for the family, for simple living and those habits and tastes which produce vigor and make men capable of strenuous service to their country. The preservation of national vigor should be a matter of patriotism.

“For this reason, and because many of the problems of public health are interstate in their character, the aid of the federal govern-

ment is necessary to supplement the work of state and local boards of health. Federal activity in these matters has already developed greatly, until it now includes quarantine, meat inspection, pure food administration, and federal investigation of the conditions of child labor. It is my own hope that these important activities may be still further developed."

CHAPTER X

Educating the People

There are social writers of late who place ignorance as the chief cause of human misery. But ignorance can be dispelled and men can be enlightened concerning the possibility of their physical, mental, moral and spiritual development. Associations are being organized on every hand with this end in view; for it is a common belief that the next decade will mark an epoch in human development as pronounced as that of the Reformation or the Rennaissance. To some extent the government as well as the people is feeling the influence of this educational *Zeitgeist*.

In the past this government has had very little to do with the school system of the country, as school work was thought to be purely of local interest. Other nations, like Germany, might work out a great and yet harmonious system, but in the United States the government lacked all except advisory

power. In this country, as it is well understood, there is no federal system, but each state of the Union has a public school system, of its own, supported by funds derived from its own resources and administered by state officials. The common schools do not receive any financial aid from the general government.

As to the development of the public school system, history shows that in 1836, the surplus revenue in the United States Treasury was divided among the states as a loan, many of the states setting aside their portions of this federal loan for public education. Before the end of the eighteenth century it became the policy of Congress to grant for educational purposes the sixteenth section of the public lands on the organization of new territories, and subsequently both the sixteenth and thirty-sixth sections were set aside for this purpose. Many of the newer states still own these lands and derive school revenue from them. Others sold all or portions of their school lands, creating permanent school funds from the proceeds, which funds are entirely under state control.

The amount of permanent school funds of each state varies from \$60,000 in New Hampshire to over \$60,000,000 in Texas, while the fund of most of the states runs into the millions. The various states show such marked differences in their school system that uniformity can only be secured through the co-operation of the central government. This was the thought that led to the establishment of the National Bureau of Education, the original purpose of which was "to collect statistics and facts showing the condition and progress of education in the several states and territories, and to diffuse such information respecting the organization and management of schools and school systems, and methods of teaching, as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education throughout the country."

General James A. Garfield introduced the bill in 1867, which was enacted into law, establishing the Department of Education, which three years later was transferred to the Department of the Interior, as a bureau.

Like the "general welfare" clause in the constitution, the words of the original act "otherwise promote the cause of education throughout the country," give wide latitude in dealing with all educational matters as the country grows, and the needs become more complex.

The first enlargement of the Bureau came in the Act approved in 1896, authorizing the Commissioner of Education to prepare and publish a bulletin showing the condition of higher education, technical and industrial, giving educational facts as to compulsory attendance in the schools and such other educational topics in the several states of the Union, and in foreign countries, as may be deemed of value to the educational interests of the states. In 1884, the Bureau was given charge of the education of the native children in Alaska and in 1890 the Bureau established the Government Reindeer Service in Alaska. Further administrative duties, without doubt, will from time to time be added, if the Bureau of Education is to be more of a school board than a literary bureau. Other branches of the government are giving direct attention to educating the people. They became responsi-

ble for education in the Philippines, in Porto Rico, in Guam and Panama, among the Indians and in general agricultural education.

In 1892, the government offered facilities for study and research in departments and bureaus. Because this opportunity for gaining higher scientific education is so little known, the entire Act is here given:

“Whereas large collections illustrative of the various arts and sciences and facilitating literary and scientific research have been accumulated by the action of Congress through a series of years at the national capital; and

“Whereas it was the original purpose of the government thereby to promote research and the diffusion of knowledge, and is now the settled policy and present practice of those charged with the care of these collections specially to encourage students who devote their time to the investigation and study of any branch of knowledge by allowing to them all proper use thereof; and

“Whereas it is represented that the enumeration of these facilities and the formal statement of this policy will encourage the establishment and endowment of institutions

of learning at the seat of government, and promote the work of education by attracting students to avail themselves of the advantages aforesaid under the direction of competent instruction; Therefore,

“Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the facilities for research and illustration in the following and any other governmental collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:

“Of the Library of Congress, of the National Museum, of the Patent Office, of the Bureau of Education, of the Bureau of Ethnology, of the Army Medical Museum, of the Department of Agriculture, of the Fish Commission,

of the Botanic Gardens, of the Coast and Geodetic Survey, of the Geological Survey, and of the Naval Observatory."

In 1901, this Act was enlarged in its scope by offering opportunity of study, to individuals, students, and graduates of all institutions of learning, as follows:

"That facilities for study and research in the Government Departments, the Library of Congress, the National Museum, the Zoölogical Park, the Bureau of Ethnology, the Fish Commission, the Botanic Gardens, and similar institutions hereafter established shall be afforded to scientific investigators and to duly qualified individuals, students, and graduates of institutions of learning in the several States and Territories, as well as in the District of Columbia, under such rules and restrictions as the heads of the Departments and Bureaus mentioned may prescribe."

As the years go by there should be an increasing number of students residing at Washington, making use of the unequalled opportunities for research found in the various departments.

The last published report of Commissioner



Wallipai school boy at Hackberry
Trained in a government school

Elmer E. Brown, of the Bureau of Education, gives a review of the great educational movements, that are nation-wide in their influence which the commissioner believed were destined to leave a strong impress upon our educational history.

The report places emphasis on the results secured through the awakening of interest in education by the "whirlwind campaigns" carried on in the southern states. These campaigns had for their purpose the increase of local taxation for schools. The great Educational Conference at Atlanta, decidedly aided the movement for better educational advantages, through consolidated rural schools and county high schools, libraries, and universities and normal schools. The great constructive private organizations, The Southern Educational Society, the General Educational Board and the Negro Rural School Fund, have proved to be of great help in the educational propaganda in the southern states.

In 1908, ten weeks before the calling of the celebrated White House Conference of Governors, the Commissioner of Education called together at Washington fifty of the chief

educational officers of the states and territories. The report of proceedings of this conference seems to indicate that the meeting is destined to mark an epoch of no small importance in the history of educational co-operation in this country, revealing, as it did, a strong disposition on the part of the state educational officers to strengthen the national office of education; and making clear the aim of the national office to accomplish its work through the assistance rendered to the state offices.

The effort to standardize the public schools of the states received strong support from this conference. Industrial and vocational education is well in the foreground of popular discussion, resulting in some new legislation and many new bills introduced in legislatures and notably the Davis bill* in Congress, providing for national aid to industrial schools, the adoption of which would give "national encouragement to the whole effort toward industrial education." The number of voluntary, non-governmental organizations is ever increasing. They aim at large practical reforms, many of them administering enormous endowments.

*See synopsis of bill in the Appendix.

Interest in education is international, as shown by the large numbers of Congresses recently held, as for instance:

International Congress on the Welfare of the Child, International Congress for the Advancement of Drawing and Art Teaching, International Congress for Moral Education, International Congress of Household Economy and Arts, International Congress on Historical Sciences, Pan-American Scientific Congress, International Congress on Tuberculosis, International Geographical Congress, International Congress on Popular Education, International Congress on School Hygiene.

The interchange of teachers between the secondary schools and colleges of this and other countries is another evidence of the world-wide movement toward educating all the people. Another illustration is that of the teachers' visit to Europe:

"The National Civic Federation, through the co-operation of the International Mercantile Marine Company and of Alfred Mosely, of London, England, arranged for a visit of five hundred or more selected American teachers to inspect the schools and colleges of Great

Britain and Ireland, during the school year, 1908-9. About fifty of the number having sufficient acquaintance with the French or German language to profit by such a visit went on to the continent, landing at Antwerp. The selection of teachers was confined to those engaged in elementary and secondary schools, in industrial and technical schools of elementary and secondary school grade, and in institutions for the training of teachers."

Out of all the many conferences, Congresses and meetings of associations, there is sure to come wisdom which will aid in more intelligently administrating the schooling of a nation. The expenditure of \$442,000,000 on the education of the children, seems like a considerable sum, but large as it is, it looks small by the side of the nation's drink bill or even the tobacco bill. Capital is easily turned toward business enterprises, but the greater work of transforming children into good citizens does not secure the aid that is adequate. Nineteen million pupils taught by 475,000 teachers—there is both a debit and a credit side to this account. A writer admits that Dr. Brown can tabulate the debit side

but who, he asks, can ever fill out the credit side, showing the changes produced in these students, their increase in bodily welfare, knowledge, skill, power, worthy interests and noble ideals, for the returns from the years' investments can not be made out in full until each individual for whose happiness and usefulness to the nation and the world as a whole the investment has been made, has lived his life, and finished his work.

While it would be of interest to follow out more fully the work of public education, the purpose of this chapter is to show that the nation itself is at work educating at least some of the people.

The Bureau of Education is responsible for the education of the native children of Alaska. From the time Russian America was bought by the United States until 1884, Alaska was without any government whatsoever; without laws by which life or property could be protected, and without schools. In 1877, the Presbyterian Board established missions in Alaska, under Dr. Sheldon Jackson. When finally the Bureau of Education was authorized to establish a school system in this great

territory, it sought for a reliable man, familiar with local conditions, to superintend this service, and found him in the missionary, Sheldon Jackson. Dr. Jackson, who still remains general agent of education in Alaska, has done a great work under most adverse circumstances in this vast territory one-fifth the size of the United States. From small beginnings, the schools have grown in numbers reaching from Sitka to the northernmost icy cap. As last reported, there are fifty-nine United States public schools for natives with seventy-three teachers and an enrollment of about 3,000.

The use of liquors on the part of the natives, their unsanitary conditions of life, the prevalence of disease, and the destruction of their fishing and hunting grounds, have proved to be great hindrances in the way of their rapid advancement. In order to meet these conditions, the Commissioner of Education urges the passage of a law, making the selling or giving of liquor to a native a felony, and that such a law be rigidly enforced. The unsanitary mode of life is so general that only governmental enforcement of better laws will

compel the natives to live more healthfully. A recommendation is made that such legislation be passed as will enable the Secretary of the Interior "to erect and equip hospitals which will serve as centers for relieving disease and destitution and for furnishing instruction to native girls in nursing, and to employ physicians and nurses for the management of these hospitals.

"The service of competent physicians and proper care in sickness is one of the greatest needs of the natives of Alaska. Diseases are general among them. The few statistics that have been collected indicate that in some villages about one-half of the inhabitants are afflicted with either tuberculosis or syphilitic diseases. Epidemics cause large fatalities."

Pending the building of such government hospitals, physicians have been appointed as teachers of certain schools. Other physicians have been appointed as sanitary officers of districts. Contracts have been made with resident physicians in certain other regions, while by contract the Holy Cross Hospital at Nome, the Simpson Hospital at Juneau, and the Good Samaritan Hospital at Valdez, give

hospital care and medical treatment to destitute natives.

Through the liberal distribution of seeds among the public school teachers by the agents of Alaska experiment stations, great progress has been made in agricultural instruction. Many school gardens are maintained and the raising of fruits and vegetables suitable to the climate have thus been greatly extended. A strong appeal is made by the Bureau of Education for an increase in the annual appropriation for the extension of education in Alaska. In his report, Dr. Sheldon Jackson, says: "The United States day schools throughout Alaska aim principally at training the Alaskan natives in the use of the English language, in order to enable them to communicate with the white population and obtain a living thereby. It is desirable that to this instruction in English there should be added systematic training in the various industries, in order that the more intelligent of the natives may become better enabled to support themselves. In northern Alaska the industries that could be introduced into the school curriculum are boat-making, sled-mak-

ing, fish-curing, use of carpenter's tools, and the making of fur clothing and shoes. In southern Alaska the forms of industrial training adapted to the needs of the native population are fish-curing, boat-making, the management and care of sawmills, the building of houses, the raising of domestic animals, and the cultivation of vegetables. Epidemics of measles, smallpox, and diphtheria are frequent and because of the high rate of mortality, there are many orphans in the Alaskan villages. It would seem but just for the national government to protect these destitute children by placing them in an orphanage, where instruction and medical treatment could be given them. This institution, could be a center for industrial education.

"The question of the legal status of the natives of Alaska presses for decision. In southern Alaska especially, where schools have been in operation for twenty years, the natives have abandoned their ancient customs, discarded their tribal relations, and have adopted civilized modes of living. Many of them are industrious, law-abiding, and self-respecting. They make excellent carpenters and mechanics.

Many of them engage successfully in business as traders, storekeepers, managers of sawmills and fisheries, as pilots and engineers. They accumulate property and pay taxes; but, except in a few instances, the privilege of citizenship has been denied them. Legislation granting citizenship to such Alaskan natives as are qualified to receive it, would seem to be extremely desirable."

In 1890, Dr. Jackson made a tour of all of the important villages on the north Alaskan and Siberian Shores, making the journey in the revenue cutter *Bear*, Captain Healy commanding. A summary of his report shows that the Alaskan Eskimos were found eking out a precarious existence upon the few whale, seal, and walrus that they could catch, while across Bering Strait, in Siberia, but a few miles from Alaska, with climate and country precisely similar, were tens of thousands of tame reindeer supporting thousands of natives, the flesh and milk of these reindeer furnishing food, the skin providing clothing, bedding, and shelter, and in winter the use of the trained animals making possible rapid communication between the scattered villages.

Educating the Indians



Both Doctor Jackson and Captain Healy seemed to be so deeply impressed with the fact that it would be wise, national policy to introduce domestic reindeer from Siberia into Alaska that they urged the establishment of reindeer raising as an industry in connection with the schools maintained by the Bureau of Education, which industry might afford the Alaskan Eskimos an assured means of support and in the course of time advance them from nomadic fishermen and hunters to the position of civilized, wealth-producing factors in the development of northern Alaska.

In 1893, Congress granted the request and has appropriated since from \$6,000 to \$25,000 annually. The revenue cutter *Bear* carried the agents of the Bureau of Education back and forth between Siberia and Alaska, during nine seasons transporting Siberian reindeer to Alaska. Although Dr. Jackson fully realized that the work was exacting in the extreme, involving cruises along hundreds of miles of fog-ridden, ice-beleaguered, uncharted coast; long delays in dangerous waters; patient bargaining in sign language with uncouth, uncivilized Siberians; tedious payment for the

reindeer in barter goods; hard work in transporting deer in the *Bear's* boats from shore to ship; discomfort on board while on the way to Alaska, and much labor in landing the deer on the Alaskan side, yet he and his aids persisted in their labors until by 1902, when the total number of deer thus imported into Alaska had reached the number of 1,280. After that date the Russian government withdrew its permit. By the natural increase of the herds, the number of deer now in Alaska is about 1600, increasing annually.

The government from the first has followed the plan of loaning small herds, usually one hundred in number, to the mission stations as an equipment for the industrial training of the Eskimos, the loan to be paid at the end of a specified period by an equal number of young deer. In order to scatter the deer widely throughout Alaska, apprentices are taken for a given number of years at each station. During his apprenticeship, each man is given thirty-four reindeer in payment for services.

The following rules governing apprenticeship show how carefully the government has guarded the interests of the natives. With

the approval of the local superintendent of his station, an apprentice may kill his surplus male deer and sell the meat for food and the skin for clothing. He is encouraged to use his sled deer in carrying mails, passengers and freight.

Upon the satisfactory termination of his contract of apprenticeship an apprentice becomes a herder and assumes entire charge of his herd, subject to the rules and regulations for the reindeer service. The herder must then in turn train and reward apprentices in accordance with the provisions of the rules and regulations, and thus become an additional factor in the extension of the enterprise.

Under no circumstances is an apprentice or herder permitted to sell female reindeer except to the government or with the written approval of the superintendent, to another native inhabitant of Alaska. The native purchasing the reindeer then becomes subject to the rules and regulations regarding the reindeer service. The prohibition of the sale of female reindeer to white men has been adopted in order to insure the reindeer industry remaining in the hands of the natives

until there is a sufficient number of reindeer in northern Alaska to furnish a permanent means of support to the native population of that region.

Upon the government has devolved the work of educating the Indian. The century of dishonor is drawing to a close. The Indian is now considered by the government, more as a man and even as a brother than as a savage to be fought or as a ward to be cared for. The Indian problem is being settled by the Indian himself becoming a factor of our social life, to be given justice and an equality of opportunity by the side of the white man. The policy of the government is now to induce the Indian to become a citizen rather than remain an alien in his native land. This, then, is the educational work of the nation, not to give a little artificial training to a few, who too often lose what little they have gained as they return to their tribal life but to aid all to assume the duties and responsibilities of American citizenship, and thus slowly rise to a consciousness of equality with their pale-faced neighbors.

As far as the actual work of the school-room

is concerned, there are reported 281 government schools, with an enrollment of about 26,000 pupils. This includes day and reservation boarding schools and non-reservation schools. The schools at Carlisle, Pa., Lawrence, Kansas, and Riverside, California, lead in numbers among the non-reservation schools, having an enrollment respectively of 1,000, 817 and 699. Owing to the changed attitude toward the Indian and because of certain abuses that had arisen in securing pupils, the Commission has recommended the gradual closing of these schools.

A plan of building has been adopted for the primary Indian schools, in the warmer regions, which has proved so successful that it might well be used for the ordinary school in the milder climates with great success. In describing it, Commissioner Leupp, says:

“If the Indian has been living in a certain way for untold centuries, I should not push him too rapidly into a new social order and a new method of doing business; I should prefer to let him grow into them of his own accord. For one thing, the children of the Indians are little wild creatures, accustomed

to life in the open air, familiar with the voices of nature rather than the voices of men, and I have felt that to imprison them in closed houses and compel them to do their school work in the ordinary routine way is a hardship which there is no need of enforcing arbitrarily. Of course, it is impracticable in some parts of the country to depart very far from the common method of housing our schools; the climate would forbid it, for example, in places where the winters were very long and severe. But in a large part of the southwest there has never seemed to me any good reason why children should be confined in a closed house during the season of fair weather, and I therefore hit upon the plan of having a few experimental houses built for our day schools, in which there will be the ordinary frame of studding and joists but the solid woodwork will come up only about as high as a wainscot or chair rail in an ordinary living room. The siding above that will be made of wire screen, and the roof will have a somewhat wide overhang. The plan contemplates also flaps, sail-cloth or tent canvas, so arranged that when the weather is fair and only the ordinary breezes

are blowing, these flaps can be raised and leave the screen the only barrier between the school-room and the outside world. In the brief passages of inclement weather which come sometimes during the dry season in the southwest, the flaps can be lowered as a protection against the sand storm, or rain dash, or whatever form the disturbances may take, on those sides from which it comes, leaving the other sides open to the air as before.

“This plan is perfectly practicable, and will appeal to the mind of any one familiar with the climate in parts of Arizona and New Mexico and southern California. I cannot help thinking that the greater sense of freedom which the children will have in being thus simply corralled instead of imprisoned will have a good effect even in the matter of discipline.

“But there is still another reason why I like the open-air schoolhouse better than the closed one. Our Indian children are particularly prone to pulmonary complaints. Ever since we have begun clothing the Indians and thereby making them physically more tender, the lungs have been their great seat of trouble; and when one child has begun to show pretty

plainly symptoms of tuberculosis, it is not only cruelty to that child to shut it up where it shall breathe the inclosed atmosphere, but it is a menace to the other children with whom it is thus brought into close and unwholesome contact."

In order to check the spread of tuberculosis, the Commission has established many sanitarium camps for the younger generation where the Indians may have the open air treatment and the best general care which is now being given in the high-priced establishments elsewhere.

Mr. Leupp has recently resigned after over four years' most successful work in charge of Indian affairs. President Taft appointed Mr. R. G. Valentine, the assistant commissioner, as his successor. In an article in the *Outlook*, Mr. Leupp tells the story of his work in treating the Indian as a man, the summary of which is as follows: His first principle was to attempt to mold, not the Indian adult, but the Indian child, his second was to give the Indian, not instruction, but education; his third was to release the Indian as fast as possible from tribal and governmental bonds,

and make him an individual citizen, and his fourth was to make the Indian a factor in his community. Not as an Indian fighter but as a life-saver and as a constructive builder will Mr. Leupp's name be written in history. His successor, Mr. Valentine, is imbued with the same spirit and will without doubt accomplish as much if not more for the general welfare of the Indian.

Miss Clara D. True, the wonderfully successful Indian agent in California, after most intimate knowledge of reservation life, says: "A spirit of brotherhood which is felt in all the ends of the earth is stirring the heart of the nation. The government is bending its energy toward lifting the Indian to his feet, so that he as well as we may walk in integrity before God, following the footsteps of the Man of Galilee."

The Spanish-American War brought to this nation, not only administrative but also educational problems. Porto Rico, Guam and the Philippines were without a general school system and the language was alien. With Cuba the aid given in education by the military government was only temporary, but

with the other countries mentioned, it has taken on the form of a permanent educational system.

In 1898, Porto Rico came under the military rule of the United States. The island is described as being forty miles wide by one hundred long, a veritable tropical garden, but with a climate tempered by the trade winds, making nearly every day like a northern day in June. Without forests, every part of the land is capable of cultivation, even to the mountain tops. When this island came under the new rule the schools were few and poorly taught, and disease was widespread, while syphilitic infection and the hookworm disease had enfeebled and rendered anemic many of the children. With less than six per cent. of the school population in any school, the military government took hold of the problem of the schools and that of sanitation with great vigor.

General John Eaton was sent from Washington to take charge of the schools and under his wise management many of the former methods were changed. Under the Spanish rule, girls and boys were not allowed in the same school

but the military orders, established co-education, "also abolished the fee system and made the schools absolutely free to all residents of Porto Rico between the ages of six and eighteen; fixed the school year at nine months of twenty days each; established a graded system for schools in towns; limited the number of pupils for each teacher to fifty; provided a principal where four schools are grouped together; changed the course of study by eliminating the study of church doctrine and religion and inserting Spanish, English, arithmetic, geography, United States history, and civil government, with music and manual training as minor subjects where teachers were competent to instruct in them; fixed the legal qualifications and salaries of teachers on a uniform basis for equal work, and required uniformity of instruction for the various classes of schools."

The military government came to an end in 1900, being supplanted by civil government. The report of this interesting period is as follows: "The civil duties of the military authorities were performed with such great efficiency on the whole that many of the most

intelligent Porto Ricans and most Americans in the island would have been glad to have seen the period of military rule extended for a few years, until the Porto Ricans had become more familiar with efficient public administration before being called upon to legislate for themselves and to execute their own laws. But public sentiment in the United States was naturally impatient to see more democratic institutions established than are possible under military government."

Under the Commissioner of Education for Porto Rico, a system of schools has been built up, far from perfect, and yet showing great advances during the single decade, 80,000 children being now enrolled in the public schools, consisting of common and high schools, rural and agricultural schools, and normal schools. In order more quickly to prepare teachers for the many schools to be established, the government early decided to send pupils for special training to the United States, and while the transports were still running, sixty Porto Rican boys and girls were sent to Carlisle. Afterwards forty-five more were sent to the same school. The legis-

lature set aside a certain sum of money to send to various schools in the United States annually twenty-five carefully selected young men and fourteen young women, each to receive a scholarship of \$500 a year for five years. Selections are made from those who have graduated with high rank from some one of the high schools of the island, or from the insular normal school, and each must agree to return to the island upon the completion of their studies and devote four years to the service of the public schools, in return for proper compensation.

Dr. Samuel McCune Lindsay, former Commissioner of Education in Porto Rico, in describing these students says: "With very few exceptions no occasion for discipline has arisen, and these young boys and girls have proven themselves worthy recipients of public aid. Many have scored most unexpected academic victories, and all are pledged to return to Porto Rico to do their share in the uplift of their fellows."

The American school system has been thoroughly established on the Panama zone to accommodate the many children of both

gold and silver workmen and natives. Education in Hawaii is under the control of the Territorial Board, which enrolls some 17,000 in the public schools, ranging in nationality according to members: Hawaiian, Japanese, Portugese, Port Hawaiian and Chinese.

The report of the Hawaiian Commissioner of Education, describing the new College of Agriculture and Mechanical arts, established in 1907, enumerates the purposes of the act as follows: "To give thorough instruction in agriculture, mechanic arts, and the natural sciences connected therewith, and such instruction in other branches of advanced learning as the board of regents may from time to time prescribe, and to give such military instruction as the federal government may require. The standard of instruction in each course shall be equal to that given and required by similar colleges on the mainland, and upon the successful completion of the prescribed course, the board of regents are authorized to confer a corresponding degree upon all students who shall become entitled thereto. The legislature appropriated, from the loan fund, \$10,000 for the erection of

buildings, purchase of apparatus, fixtures, etc., and \$15,000 from the general revenues of the territory, \$10,000 of which is to be for salaries and \$5,000 for general expenses.

"The Board of Regents has been appointed, and the task of selecting a site and putting the institution in working order is already under way. Much interest has been manifested by the community in the college, and it is hoped that many good results will flow from it. With the aid that this institution should receive from the federal government, under its munificent system of endowing agricultural colleges, a most thorough system of practical instruction can be built up, the equal of any that obtains in our sister territories. This being a subtropical country, the problems that will be presented here will be unique, and their working out will be watched with much interest."

Dewey's victory in Manila Bay spelled responsibility for this nation. Either this distant colony must be ruled from Washington as a possession rather than a co-ordinate part of a great federation or else the Filipinos must be trained as speedily as possible for inde-

pendent self-government. The latter alternative was adopted as the policy of the insular government, which recognized that education was essential to the establishment of a democratic self-government. The bloody victories of the army and navy were followed by the bloodless victories of an army of teachers. It was recognized that if the eight million people of the Philippines, Pagan, Mohammedan and Christian, speaking many languages, were ever to be amalgamated into one nation they must have a common language, and no other language was so suitable as the English. To the end of bringing an English education to all the islands, this government in 1901 sent over 1,000 teachers from the states. During the past eight years, nearly 2,500 American teachers have gone to the Philippines. To-day there are about 750 of this number on the field.

Extracts from the report of Superintendent Dr. David P. Barrows, Superintendent of Education, made in 1904, show the ideal toward which the government was aiming: "The aim has been and still is to place the elements of an English education within the

reach of children of every social class in every municipality and every hamlet of the archipelago. During the past year a course of study has been prescribed for these primary schools by the general superintendent. It covers but three years of instruction, which include three in the English language, two in arithmetic, prefaced in the first year by easy number work, and one year in elementary geography. In addition to these subjects provision is also made for singing and drawing, for both of which the Filipino has unusual endowment; for handiwork, consisting of school gardening and simple tool work for the boys, sewing and elementary housekeeping for the girls, for physical exercise; and for the training of character."

The main reason for making the primary course so brief is the need for a plan of study, fairly complete though very simple, which can be taught wholly by Filipino teachers, who themselves have had but a limited English education.

"The primary course aims to give the bare essentials of a primary education, and it aims to give this to every child between the ages of

six and fourteen. The attendance of 400,000 children in the primary schools is the standard toward which the bureau of education is aiming, and if it can reach this standard and maintain it for a period of ten years, there will be, broadly speaking, no illiterate youth among the Filipino people, but the entire coming generation will be able to speak, read, and write the English language with a fair degree of accuracy and fluency; will be able to make ordinary arithmetical calculations, including those operations which are used in ordinary business; will have fair knowledge of the geography of the Philippines and of the continents and countries of the world; and, it is believed, will have received a very beneficial influence upon their characters during the formative period."

The early standard of 400,000 has been passed, for today there are half a million pupils enrolled in all the public schools of the islands.

The Educational Department recognizing that the knowledge of English is not the only thing necessary in order to fit the islands for self-government, has adopted the policy of the

extension throughout the islands of facilities for giving education along the most practical lines of industrial, agricultural, and domestic science training. In an address delivered by the secretary at the annual convention of division school superintendents, which was held in Manila on January 14 to 20, 1907, it was pointed out that along the lines of purely academic instruction most satisfactory progress has been made, but that an immense field for the development of the more practical lines of education still lay before the department.

It was also shown that because of the previous training and habits of thought of the Filipinos and the necessity of making every member of the community a self-supporting individual at the earliest practicable date, that it was necessary to establish and maintain the most extensive industrial school system throughout these islands which the finances of the government would permit. The Filipino boys have shown exceptional aptitude and ability for acquiring industrial training, and in the use of modern tools and implements they have shown themselves remarkably effi-

cient. The Primary Industrial work includes weaving, hat-making, drawing, elementary agriculture, woodworking (ship and carpentry), elementary pottery and masonry, making of rope, cordage, brooms, brushes, etc., for the boys, and weaving, sewing, cooking, dyeing, bleaching, hat-making, and pottery for the girls.

In a recent interview, Mr. B. E. Ingersoll, principal of the large Trade School at Iloilo, is quoted as saying:

“When we first started work among the Filipinos, although we had everything in the way of equipment, we encountered every kind of difficulty and opposition. Our first year was very discouraging, for the natives refused to attend school or even to show the slightest interest. In fact, I remember during that year that we had less than twenty-five pupils in the entire school. After the first year they seemed to hunger for an education, but the courses they pursued were impracticable and did not serve to help them in earning a living. Again, many of them needed money on which to live while they attended school. From this situation sprung the trade school,

which today is one of the factors in the development of our island possessions and in the happiness and comfort of its people. The trade school is self-supporting in itself and earns a living for its students. The school takes contracts for different work in their line. During the afternoon session of the school, it pays its students, who are practically practicing at their trade, for piece work. In one instance, we took a contract for the making of 100 trunks for the constabulary police and paid the pupils for their work in turning them out."

Agricultural and industrial schools are being rapidly extended among the non-Christian tribes with fair success. Filipino students were sent by the government to the United States for further education. A number of students are reported as having finished their course with credit, subsequently taking positions under the civil service or as insular teachers. The yearly expense of maintaining these students in the United States is nearly \$100,000. If this nation has helped in the educating of the Filipino, it has been of equal service in the line of sanitation. Disraeli

once wrote: "Public health is the foundation upon which rests the happiness of the people and the power of the State."

The general average health among the Filipinos has been raised. Smallpox has been checked by compulsory vaccination of the entire population, a disease which formerly claimed a toll of hundreds of thousands of lives. The Bubonic plague has been kept out of the Islands, and the lepers have been assembled in one place. The tropical diseases are being studied and efforts made to strike at the cause of the age-long plagues.

The question of higher education conducted under Federal authority has always been a dream of some of the national leaders. Washington, himself, hoped for the establishment of a great national university to be located in the Federal City as is shown by an item in his will.

Item—"I give and bequeath in perpetuity, the fifty shares which I hold in the Potomac Company (under the aforesaid acts of the legislature of Virginia) toward the endowment of a university, to be established within the limits of the District of Columbia, under the auspices of the general government, if that

government should incline to extend a fostering hand towards it. (Signed July 9, 1790.)" Those who did not believe in a centralized government opposed so strongly the granting of any appropriations for such purposes, that the university was not established.

A bequest made by an unknown foreigner in 1826 made it possible for the nation to undertake research work and the diffusion of knowledge without depending upon the whims of Congress for the necessary funds. James Smithson, an Englishman who had never visited America, and, as far as is known, was not acquainted with any Americans, willed his estate, amounting to more than half a million dollars to the United States: "I bequeath the whole of my property to the United States of America, to found at Washington, under the name of the Smithsonian Institute, an establishment for the increase and diffusion of knowledge among men."

The gift was accepted and the establishment was organized, composed of the President of the United States, Vice-President, the members of the Cabinet, and the Chief Justice of the Supreme Court. The administration is

by a Board of Regents composed of the Vice-President of the United States, the Chief Justice, three members of the Senate, three members of the House of Representatives and six citizens, no two of whom may be from the same state, though two must be residents of the District of Columbia. The executive officer of the Smithsonian Institute is the secretary, chosen by the Regents. A beautiful building was built on the Mall, and situated as it is in a park, this structure forms one of the architectural attractions of the city.

The motive underlying the bequest was the desire "to increase knowledge; to stimulate men of talent to make original researches, by offering suitable rewards for memoirs containing new truths; to appropriate annually a portion of the income for particular researches under the direction of suitable persons," and "to diffuse knowledge; to publish a series of periodical reports on the progress of different branches of knowledge; and to publish occasionally separate treaties on subjects of general interest."

The publications of all these series are distributed gratuitously to important public

libraries throughout the world, thus aiding greatly in the diffusion of knowledge. Congress has, from time to time, added to the duties of this Institution. It was made the depository for scientific books. It was made the custodian, and the only lawful place of deposit, of all objects of art and of foreign and curious research, and all objects of natural history, plants and geological and mineralogical specimens belonging to the United States. These collections are known as the National Museum.

A large number of works of art having been given the nation, the Institution was declared to be the National Gallery of Art and the recipient of all such donations.

In the early history of the establishment, scientific study of the American Indian was undertaken. From these researches has grown the Bureau of American Ethnology, an important division of the work of the Institution. Another Bureau is that of the International Exchange, by means of which any scientist of recognized standing, whether in the United States or elsewhere, may send, without expense to himself, any material of a scientific

nature, including books, to any other scientist who is within reach of the system. While not a federal university, it is doing much of the work that would be done by such an institution, having eighty-two men on its scientific staff.

In 1902, Mr. Carnegie gave twelve millions of dollars to found in Washington, in the spirit of Washington, a university without students, which "with the co-operation of institutions now or hereafter established, there or elsewhere, shall, in the broadest and most liberal manner, encourage investigation, research and discovery, encourage the application of knowledge to the improvement of mankind; provide such buildings, laboratories, books and apparatus as may be needed, and afford instruction of an advanced character to students whenever and wherever found, inside or outside of schools, properly qualified to profit thereby."

Congress approved and incorporated the institution in 1904. The work carried on may be divided into four classes:

First: large projects whose execution requires continuous research by a corps of

investigators during a series of years; second: small projects which may be carried out by individual experts in a limited period of time; third: tentative investigations, carried on by young men and women who have shown unusual aptitude for research and have desired to pursue specific problems for one or two years; fourth: the publication of the year-books of the institution and of certain works which would not otherwise be readily printed.

In pursuance of this plan, six laboratories for as many different fields of investigation have been constructed in different sections of the country, and an administration building is in course of construction in Washington and plans for the construction of a vessel specially designed for ocean magnetic work have been completed.

The following departments of investigation have been established: Department of Botanical Research, with headquarters at Tucson, Ariz.; Department of Marine Biology, with headquarters at Tortugas, Fla.; Departments of Historical Research and Terrestrial Magnetism, with headquarters in Washington; Geographical Laboratory, located in Washing-

ton; Department of Economics and Sociology, with headquarters in Worcester, Mass.; Mount Wilson Solar Observatory, in California, and the Department of Meridian Astrometry, which is now establishing a temporary observatory in San Luis in Argentina.

The nation has devoted much attention to agricultural education and research. Agricultural societies were formed in the very beginning of the United States, having for their object the handling of fairs and the publication of books and periodicals. In 1792, a professorship for natural history, chemistry and agriculture was established in Columbia, in New York City. During the next forty years, many schools in which agriculture was taught were opened in various parts of the country. In 1853, New York opened the Peoples' College, a state agricultural and industrial school. Within a few years, three other states opened agricultural colleges.

The national connection with agricultural education began when the Department of Agriculture was formed in 1838; first as a division of the Patent Office for the purpose of distribution of valuable seeds and plants,

and in 1862 formally organized as an independent department. The story of the educational work of this department is told in the annual report. The Act establishing the department, defined the purpose to be, "to acquire and diffuse among the people of the United States useful information on subjects connected with agriculture in the most general and comprehensive sense of that word, and to procure, propagate, and distribute among the people new and valuable seeds and plants." Since its organization, however, the functions of the department have been constantly enlarged by succeeding Acts of Congress, until they now include almost every phase of agricultural research, and a wide range of educational work. The year in which the National Department of Agriculture was established according to a report on agricultural education also marks the passage of the first Morrill Act "donating public lands to the several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts." This Act provided for "the endowment, support, and maintenance of at least one college (in each state) where the leading

object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and mechanic arts * * * * in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life." For these purposes the several states were granted 30,000 acres of land for each member of Congress, the entire proceeds of the sale of which was to constitute a perpetual fund yielding not less than five per cent interest. There have been granted by the federal government, under the provisions of this Act, 10,320,843 acres of land, from the sale of which there has been realized the sum of \$12,744,467 with land valued at \$4,858,111 remaining unsold.

The passage by Congress of the Hatch Act in 1887, granting each state and territory \$15,000 for the establishment and maintenance of agricultural experiment stations gave a great impetus to agricultural education in the land grant colleges. The Morrill Act passed by Congress in 1890 increased the amount of the grant providing an immediate appropria-

tion of \$15,000 to each state and territory, an increase of \$1,000 each year for ten years, and thereafter \$25,000 annually to be applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic science. Fifteen states have taken advantage of this provision, while sixty-three agricultural institutions receive from federal and state governments an income amounting in all to more than \$10,000,000 annually. Experiment stations are now in operation in every state and territory including the insular possessions. Both the department and the stations open their laboratories to students for research work while continuing their studies.

The work of the Agricultural Department in reaching the farmer and his family with the results of its own laboratory work, and that of the experiment stations, is ever widening. President Roosevelt in his first message, said: "The national government, through the Department of Agriculture, should do all it can by joining with the state governments and with independent associations of farmers to

encourage the growth in the open farming country of such institutional and social movements as will meet the demand of the best type of farmers, both for the improvement of their farms and for the betterment of the life itself. The Department of Agriculture has in many places, perhaps especially in certain districts of the South, accomplished an extraordinary amount by co-operating with and teaching the farmers through their associations, on their own soil, how to increase their income by managing their farms better than they were hitherto managed. The farmer must not lose his independence, his initiative, his rugged self-reliance, yet he must learn to work in the heartiest co-operation with his fellows, exactly as the business man has learned to work; and he must prepare to use to constantly better advantage the knowledge that can be obtained from agricultural colleges, while he must insist upon a practical curriculum in the schools in which his children are taught."

Concerning instruction in meteorology, the chief of the Weather Bureau reports as follows:

"A steady increase of interest in meteorological education is manifest throughout the country, as, in fact, throughout other civilized nations. In general, instruction in meteorology is considered as a part of the courses in geology, geography, or physical geography; but in two universities, George Washington and Cornell, courses have been offered in the higher mathematics and physics that constitute the fundamental basis of meteorology.

"During 1907, there were fourteen universities, colleges, and scientific schools in which regular courses of instruction were given by Weather Bureau officials, and in five or six more the matter was in abeyance. Also there were at least forty officials besides those conducting the above mentioned courses who gave occasional lectures or addresses."

The chief of the Bureau of Plant Industry reports on the distribution of seeds for school gardens as follows: "The school-garden work which has heretofore been conducted by the office of the horticulturalist has been considerably enlarged during the present year. The work of supplying flower and vegetable

seed to teachers of the rural schools was extended to every state in the Union save two, namely, Arkansas and Nevada. The four states which received the greatest number were New York, Illinois, Maryland, and Massachusetts in the order named. The extent of this work can be seen when it is stated that the number of individual gardens which, if planned on the basis suggested in Farmer's Bulletin, No. 218, could be maintained with the seed furnished aggregates 36,173 flower gardens and 31,480 vegetable gardens. In addition to the seed, 5,102 decorative collections, consisting of ten varieties of annual flowering plants, have been distributed to these schools. The total number of packets of flowers and vegetable seed sent out for school purposes was 388,285. It is evident from these figures that there is a very general interest in the school-garden work, and as the demand increases each year it is believed that a very important educational want is being met."

The Forest Service has sent thousands of its publications to teachers and school officers and

has recently published a valuable circular on forestry in the Public Schools. The Service is now co-operating with the Office of Experiment Stations in preparing exercises in forestry for elementary and secondary schools.

Many agricultural high schools have recently been established, recognizing the teaching of agriculture as one of the important branches of industrial education. Federal aid has been sought for the establishment of industrial schools in the several states, many bills have been introduced, but they are mostly embodied in the Davis Bill,* still pending in Congress. This bill provides for national aid to industrial schools, not more in number than one for each district of five counties, nor less than one for each district of fifteen counties in each of the states, on condition that the schools shall be otherwise adequately supported by the states in which they are located. The measure takes account of all three kinds of industrial training, but the emphasis is placed upon agriculture.

The Agricultural Department is not only teaching the boys and girls but it is also teach-

*See Appendix for text of Davis Bill.

ing the adults to farm, and this includes home culture as well as crop culture. The women as well as the men are taught by experts at all of the farmers' institutes.

Booker Washington, in a recent magazine article, speaking of the new work of education, says: "If I were to name a single instance of this new policy of taking education to the man on the job, an instance which seems to me to be more thorough-going and more fruitful of good than any other of which I know, I should refer to the work that the General Education Board is doing in conjunction with the Agricultural Department at Washington in order to instruct the farmers of the South, by practical demonstrations on their own farms, in the newer and better methods of cultivating the soil. No other single agency, I am sure, is destined to do more in the task of creating the New South.

"It has compelled the farmer, the mechanic and the doctor to go back to school to become students, and to retain the student habit in reference to the practice of their trades and professions.

"On the other hand, the same need has com-

pelled the universities and the schools to go outside of their walls in order to reach the masses of the people. It is responsible for the night-schools and the university extension work and the correspondence schools of all kinds."

"It is a significant fact," says Dr. Brown, Commissioner of Education, "that our more recent educational movements are taking much more adequate account of the body on the one hand, and of the supreme concern of human life or moral life upon the other hand."

CHAPTER XI

Transforming Foreigners into Fellow Citizens

Each ship doth bring them; see where lost they stand
In huddled groups, and stare from side to side
Upon the curious crowds whose looks deride
Their peasant faces, garments strange that brand
Them aliens; in their far-off native land
Each had his place, though humble; here the tide
Sweeps him along, an animal dull-eyed,
Patient, submissive. What mysterious hand
Has thus uprooted from their ancient place
These myriad exiles, cast them on our shore,
And what the purpose? Shall our country be
The crucible of nations whence a race
Shall issue in dim ages to restore
God's image to mankind, and make men free?

William Aspenwall Bradley. (Oct. '06-American).

The real Americans came to this land in the cabin of the *Mayflower* and landed on Plymouth Rock—yes, and they are also coming in the unspeakable steerage of every ship which lands its motley crowd at Ellis Island.

The only native Americans were the red men, who stood with wondering eyes and welcomed the newcomers from many lands. There never has been a time when this was a white man's country with common ideals and

a universal language. The nation, its people, and its language have always been in the making, for new elements have been constantly introduced. If the earlier settlers were English, they were quickly followed by Dutch, German, Spanish, French, African, each with its own national offering for the composite life of the new nation. John Alden, Roger Williams, John Smith, William Penn, Peter Stuyvesant, down to the latest Vasili Korbsoff just landed from Russia—each of these came with an added contribution to the common life.

There are those who would put up the bars against all except the Celt, the Briton, the Teuton, the Scandinavian, but the Semitic, the Slavic, and the Latin peoples have qualities which are needed to complete a full rounded national life. A student of racial characteristics, says: "We shall be a more versatile, a more plastic people, gentler in our thoughts and feelings because of the Alpine strain; livelier and brighter, with a higher power to enjoy the beautiful things of life, because of the Latin blood. We may doubtless learn courtesy from many an Italian; virtue from many a Slav; family loyalty from

many a Jew; the beauty and the refining influences of music from many a Hungarian."

The question of restriction of immigration is not one of shutting out European races, but of denying entrance to the dependent and defective individuals from all the nations. As President Roosevelt well said, "We cannot have too many good immigrants, and we do not want any bad ones."

A million aliens coming to our ports each year will prove too great a number for proper assimilation unless better methods of selection are applied, and greater effort is put forth to train the new Americans in the ideals of democracy. Yet quantity will be no menace if the quality of immigration is up to the standard. Quantity will be no menace if those who are already here will teach the newcomers that we are brothers all in the building of a great nation.* Selection, re-

*IMMIGRATION BY DECADES, 1820 to 1906, INCLUSIVE.

1820	8,385
1821 to 1830.....	143,439
1831 to 1840.....	599,125
1841 to 1850.....	1,713,251
1851 to 1860.....	2,511,060
1861 to 1870.....	2,377,279
1871 to 1880.....	2,812,191
1881 to 1890.....	5,246,613
1891 to 1900.....	3,687,564
1901 to 1906.....	4,933,811
Total.....	24,032,718

ception, education, these are great words, embodying great ideas, suggesting the necessary steps in the nation's work of transforming foreigners into fellow citizens.

The history of the regulation of immigration only records the restrictive measures of the last quarter century of our nation's life. For the first thirty years of the federal constitution, the Fathers regarded this republic as an asylum for the oppressed of all nations, and the good and the bad were equally welcomed. To check, in a measure, the entrance of the criminal classes, an act regulating the "carriage of passengers," referring to ocean passengers, was passed in 1819. But until after the Civil War, Congress left the actual control of immigration to the various seaboard states, which made no effort to unify their laws. A comparatively small amount of harm resulted from this lack of system, because these immigrants coming largely from the north of Europe were destined for the farms of the newer west rather than the industrial and mining centers as in later times.

The Civil War so checked the immigration of the foreigners that special efforts were put

forth to encourage their coming. President Lincoln, during our Civil War, in his third annual message (1863), referring to the subject of immigration, said: "I again submit to your consideration the expediency of establishing a system for the encouragement of immigration. Although this source of national wealth and strength is again flowing with greater freedom than for several years before the insurrection occurred, there is still a great deficiency of laborers in every field of industry, especially in agriculture and in our mines, as well of iron and coal as of the precious metals. While the demand for labor is much increased here, tens of thousands of persons destitute of remunerative occupation are thronging our foreign consulates and offering to emigrate to the United States if essential, but very cheap; assistance can be afforded them * * * * This noble offer demands the aid, and ought to receive the attention and support, of the government."

Again, in his fourth annual message (1864), he said: "I regard our immigrants as one of the principal replenishing streams which are appointed by Providence to repair the ravages

of internal war and its waste of national strength and health. All that is necessary is to secure the flow of that stream in its present fullness and to that end the government must in every way make it manifest that it neither needs nor designs to impose involuntary military service upon those who come from other lands to cast their lot in our country."

Later the evident necessity for restriction of coolie immigration and contract labor called for the laws of 1869, 1873 and 1875. The first real immigration law was passed in 1882, the Supreme Court having decided that this question was one to be settled by the federal rather than state legislation. In the practical administration of this law, the nation allowed the states to perform the work with federal co-operation. National supervision of immigration was fully secured by the law of 1891, and the machinery for the enforcement of the law was set in motion. Owing to the industrial depression which followed, there was a widespread feeling of hostility toward the immigrant, finding voice in the demand for an "illiteracy test," which was enacted into law by Congress in 1896, but vetoed by President Cleveland.

The law of 1903, added further restrictive measures, increasing the head tax to \$2.00, excluding many more classes of persons and requiring the deposit of the ships' manifests containing full information concerning the immigrant.

In 1903, the supervision of immigration was transferred to the new Department of Commerce and Labor, and later the administration of the naturalization laws was added to the work of this Bureau. In 1907, after much discussion, a new Act was passed by Congress, which gave the government increased powers in supervision and selection, although it left many loop-holes which must be stopped later.

It is well to know the important provisions of this law in order to judge of its effectiveness. This law raises the head tax to \$4.00, although the original bill made the amount five dollars instead of four. This head tax is to be paid to the collector of the port by the master of the vessel. The tax becomes a lien on the ship until paid. This forms an "immigrant fund to be used to defray the expense of regulating immigration, the salaries of officers and

clerks, and all other expenses incurred in enforcing the laws.* That this head tax might

*The financial statement of the immigrant fund for a year is shown in the following which is a statement of the receipts and expenditures on account of the immigrant fund for the fiscal year July 1, 1907, to June 30, 1908, and balance on hand, June 30.

Balance shown in report for fiscal year 1907 \$3,079,515.26
Special appropriations not heretofore deducted 1,259,529.13

Total 1,819,986.13
Amount advanced to Immigration Commission,
fiscal year, 1907..... 75,000.00

\$1,744,986.13

Appropriation "Enforcement of the
Chinese-Exclusion Act," 1908 500,000.00
Appropriation "Immigrant Station,
Charleston, S. C..... 70,000.00
Appropriation "Immigrant Station,
Galveston, Tex." 70,000.00
Appropriation "Immigrant Station,
New Orleans, La." 70,000.00
Appropriation "Immigrant Station,
Philadelphia, Pa." 250,000.00
Reimbursement, Public Health and
Marine Hospital Service 150,000.00
Addition to old Hospital building, Ellis
Island 250,000.00
Additional buildings contagious-dis-
ease hospital, Ellis Island..... 150,000.00
New Water main, Ellis Island 18,000.00
Mechanical equipment, contagious-
disease hospital, Ellis Island 115,000.00
Immigration Commission..... 75,677.14

Amount of special appropriations to be
reimbursed from the "immigrant
fund.".....

1,718,677.14

Receipts, fiscal year, 1908.....
26,308.99
2,500,000.00

Expenditures, fiscal year, 1908
2,526,308.99
1,975,391.95

Balance June 30, 1908 \$550,917.04

well be increased to ten dollars is the thought of certain experts, this increase to be made, not for the purpose of restriction but rather to reimburse the government for the cost of an increased force of employees, and to cover all expenses incurred before individual immigrants become self-supporting.

The provisions of this law regarding the excluded classes are strong enough if thoroughly enforced to keep most of the undesirable immigrants from landing on our shores or remaining to become a burden to the nation.*

A recent decision of the Commissioner of

*

Causes of rejection.	1904	1905	1906	1907	1908
Idiocy	16	38	92	29	20
Imbeciles	—	—	—	—	45
Feeble-minded	—	—	—	—	121
Insanity (including epileptics)	33	92	139	189	184
Pauperism	4,798	7,898	7,069	6,866	3,741
Contagious diseases	1,560	2,198	2,273	3,822	2,900
Tuberculosis	—	—	—	—	53
Criminality	35	39	205	341	136
Prostitution (and in 1908 other like immorality) ..	9	24	30	18	124
Procuring or importing prostitutes, etc.	3	4	2	1	43
Contract laborers	1,501	1,164	2,314	1,434	1,932

During year ending June 30, 1910, 25,000 were denied admission while 1,041,570 were admitted.

Immigration extends this act to apply to the possession of a certain amount of money. "Certain steamship companies are bringing to this port many immigrants whose funds are manifestly inadequate for their proper support until such time as they are likely to obtain profitable employment. Such action is improper and must cease. In the absence of a statutory provision, no hard and fast rule can be laid down as to the amount of money an immigrant must bring with him, but in most cases it will be unsafe for immigrants to arrive with less than twenty-five dollars in addition to a railroad ticket to destination; while in many cases they should have more. They must, in addition, of course, satisfy the authorities that they will not become charges upon either public or private charity."

If the steerage "pays the ship," then is it any wonder that there has been in the past a great scramble for the passage money of the immigrant? The steamship companies, with ships flying a foreign flag, thought first of the dollar, so that quantity rather than quality became their aim.

By glowing advertisements and by the

personal efforts of their agents, immigration was unduly stimulated. As long as this emigration meant the opportunity of freeing their lands of dependents and delinquents, many countries not only acquiesced but secretly aided the transportation companies in the effort to increase the size of the ships' manifests.

This secret encouragement of emigration has given place to a policy of restriction on the part of most of the European nations, for they have discovered that the emigration of thousands of stalwart young men is a financial loss inasmuch as their going has greatly reduced the number fitted for military service or for industrial or agricultural life. Another reason for restriction is found in the fact that the deported immigrant is returned not to his home, but to a port often far from his native village, thus filling the ports with paupers and possible criminals, every one becoming an added burden to the state.

In addition to the free transportation of the deported immigrants by the steamship companies, under the new law these companies are fined \$100 for bringing to the

United Staes any alien who is an idiot, imbecile, epileptic, afflicted with tuberculosis or with any loathsome or dangerous contagious disease, if it can be shown that such disease or disability could have been detected before sailing. Because of this provision, more careful inspection is made by the transportation companies, and yet because of the passage money, the temptation is always present to take great risks in hope that individuals carefully coached to answer questions may be able to pass the inspectors at Ellis Island. The equipment and management of Ellis Island is well nigh perfect, but with several thousand immigrants daily passing through, little time is given for a sufficiently careful individual inspection. That the inspection and selection should be made before sailing is self-evident, yet thus far but one country has granted this privilege. Physicians from the U. S. Marine Hospital Service are welcomed as inspectors in the ports of Italy, for that nation has a special care for all of its emigrants, constantly sending officials to every foreign colony, and reporting conditions to their government.

There are those who insist that even foreign-port inspection is not enough, but that there should be located an inspection station in every important center that none need be misinformed or drawn away from home without assurance of entrance to the United States. This inspection service might be maintained even in an unwilling country by a provision denying entrance to any aliens except those who bore clean bills from such local inspectors. This extra expense could be met from the increased head tax. Until such a system is established, the government is compelled to maintain a force of secret service men especially to see that the steamship companies do not break the law regarding the soliciting of trade, to watch the procurers of women, and to keep a check on those who are seeking to import contract labor.

The necessity for strict enforcement of the Contract Labor Law is revealed in the constant effort on the part of employers of labor to import foreigners in order to reduce the wage or to take the place of strikers. Naturally the labor unions are opposed to such importation of alien labor as tending to lower

the standard of living. That they have high authority for their desire to maintain a high standard is certain, for President Taft is reported to have said in a recent speech: "There is a higher standard of living among American laborers than in any country in the world, and while there doubtless have been a good many other reasons for this, certainly the effect of the organization of labor has been to maintain the steady and high rate of wages, making such a standard of living possible."

The Bureau of Immigration thus urges the necessity for the continuance of the contract labor law: "So long as healthy, honest, and industrious laborers, either unskilled or skilled, seek this country impelled by no other motive than a desire to better their condition, by availing themselves of a natural demand for their services, no one is entitled to complain, but the moment that the migration of any class of laborers is induced, encouraged, or assisted by the prospective employer, there is an encroachment upon that principle essential to the protection of our own institutions and standards of living and constituting the very marrow of the alien contract labor legislation, which requires that preference shall be

given by the employer to our own labor market in the selection of his employes and that a foreign source of supply shall be resorted to only in case of absolute necessity, and even then solely by the statutory means."

Many criminals and otherwise undesirable immigrants escape U. S. inspection at ports of entry, by traveling as stowaways and by deserting in American ports from ships on which they were employed as sailors. This apparent failure in the law must be remedied if we are to cope successfully with the "Black Hand," and with the fugitives from justice from many lands.*

*Deserting alien seamen, fiscal year ended June 30, 1908. By ports.

New York, N. Y., 6,942; Boston, Mass. (Spain and France not included) 217; Baltimore, Md., 284; Philadelphia, Pa., 1,278; San Francisco, Cal., 586; San Juan, P. R. 1; Brunswick, Ga., 54; Eureka, Cal., 6; Fernandina, Fla., 22; Galveston, Tex., 264; Gloucester, Mass., 6; Gulfport, Miss., 393; Jacksonville, Fla., 8; Key West, Fla., 3; Los Angeles, Cal., 110; Mobile, Ala., 220; New Bedford, Mass., 15; New Orleans, La., 782; Norfolk, Va., 247; Pascagoula, Miss., 135; Pensacola, Fla., 279; Portland, Me., 9; Portland, Oreg., 488; San Diego, Cal., 34; Savannah, Ga., 159; Seattle, Wash., 570; Tampa, Fla., 64; Honolulu, Hawaii, 50; Alaska, 9. Total, 13,235.

Stowaways found on board vessels, arriving at ports of the United States, fiscal year ended June 30, 1908. By ports:

New York, N. Y., 344; Boston, Mass., 33; Baltimore, Md., 29; Philadelphia, Pa., 31; San Francisco, Cal., 6; San Juan, P. R., 4; Galveston, Tex., 18; Gulfport, Miss., 1; Jacksonville, Fla., 3; Mobile, Ala., 1; New Bedford, Mass., 6; New Orleans, La., 26; Norfolk, Va., and vicinity, 3; Pascagoula, Miss., 3; Pensacola, Fla., 1; Portland, Me., 4; San Diego, Cal., 6; Savannah, Ga., 5; Seattle, Wash., 16; Honolulu, Hawaii, 93. Total, 633.

The three-years' clause in the immigration laws, making it possible to deport alien women found in houses of ill-fame or practicing prostitution, made it possible to strike a severe blow at a great evil, but a recent decision of the United States Supreme Court declares the law unconstitutional. The fact that three of the judges dissented from the opinion of the court, gives hope that the apparent defect may be remedied in the near future.

Our government has tardily subscribed to an international arrangement for the suppression of the white slave traffic.* The countries now

*INTERNATIONAL AGREEMENT ON WHITE SLAVE TRAFFIC.

Article 1. Each of the contracting governments agrees to establish or designate an authority who will be directed to centralize all information concerning the procurement of women or girls with a view to their debauchery in a foreign country; that authority shall have the right to correspond directly with the similar service established in each of the other contracting states.

Article 2. Each of the governments agrees to exercise a supervision for the purpose of finding out, particularly in stations, ports of embarkation and on the journey, the conductors of women or girls intended for debauchery. Instructions shall be sent for that purpose to the officials or to any other qualified persons, in order to procure within the limits of the laws, all information of a nature to discover a criminal traffic.

The arrival of persons appearing evidently to be the authors, the accomplices or the victims of such a traffic will be communi-

included in the agreement are Great Britain, France, Germany, Belgium, Denmark, Spain, Italy, The Netherlands, Portugal, Russia, Sweden, Norway, Switzerland, and the United States. As a further method of restricting this fearful traffic the Commissioner of Immigration suggests that, "it would be highly advantageous in the endeavor to break up the white-slave traffic to make it a felony or misdemeanor punishable by imprisonment for an alien once deported from the United States as a procurer of prostitutes or as a prostitute again to return to the United States, and the alien to be deported at the expiration of the term of imprisonment. It is highly necessary

cated in each case, either to the authorities of the place of destination, or to the interested diplomatic or consular agent, or to any other competent authorities.

Article 3. The governments agree to receive, in each case, within the limits of the laws, the declarations of women and girls of foreign nationality who surrender themselves to prostitution, with a view to establish their identity and their civil status and to ascertain who has induced them to leave their country. The information received will be communicated to the authorities of the country of origin of said women or girls, with a view to their eventual return.

The governments agree, within the limits of the laws, and as far as possible, to confide temporarily and with a view to their eventual return, the victims of criminal traffic, when they are without any resources, to some institutions of public or private

that this diabolical traffic, which has attained international proportions, should be dealt with in a manner adequate to compass its suppression. No punishment is too severe to inflict upon these procurers who prey upon womanhood.

In administering the law, the department is charity or to private individuals furnishing the necessary guarantee.

The governments agree also, within the limits of the law, to return to their country of origin such of said women or girls who ask to be so returned or who may be claimed by persons having authority over them. Such return will be made only after reaching an understanding as to their identity and nationality, as well as to the place and date of their arrival at the frontier. Each of the contracting parties will facilitate their transit over its territory.

Correspondence relative to the return (of such women or girls) will be made, as far as possible, through direct channels.

Article 4. In case the woman or girl to be sent back cannot herself pay the expenses of her transportation and she has neither husband, nor relations, nor guardian to pay for her expenses occasioned by her return, they shall be borne by the country in whose territory she resides as far as the nearest frontier or port of embarkation in the direction of the country of origin, and by the country of origin for the remainder.

Article 5. The provisions of the above Articles 3 and 4 shall not infringe upon the provisions of special conventions which may exist between the contracting governments.

Article 6. The contracting governments agree, within the limits of the law, to exercise, as far as possible, a supervision over the bureaus or agencies which occupy themselves with finding places for women or girls in foreign countries.

frequently embarrassed by the fact that an alien woman of the immoral class refused admission at a port or arrested within the country for deportation may, by marrying an American citizen, invest herself with his status and defeat the purpose of the law. To overcome this difficulty, it will be necessary to add to the Naturalization Act a provision that the marriage of an alien woman to an American citizen shall not be regarded as conferring upon such woman the rights and privileges of citizenship in this country unless she is a person of good moral character.

The multitudes from all nations are coming to our shores. We cannot close the gates. We can restrict, but even then nearly one million a year of aliens will land at our ports while one-third of that number will yearly return to their native land. Our duty then as citizens is to know these people better, so that we can more easily educate and assimilate the new Americans. We must know these people before they leave their homes. Already a number of social workers have traced certain streams of immigration to their source. They have lived in the humble homes

in the mountain valleys; they have studied the religion and the ideals of these peasants, and by their descriptive writings furnished the information which makes it possible for us in America to deal with these newcomers, not as "dagoes" or "hunkies," but as men and women, capable of high attainment, recognizing that each nationality has its offering of music or art or methods of agriculture, which will make the nation richer. Prof. Steiner's pilgrimage with a number of young men from Pennsylvania we hope may be extensively copied. The members of this group journeyed to the villages and mountain towns of Italy and eastern Europe, lived in the homes of the peasants, thus gaining a knowledge of the language and customs of the people, which will prove of great service to them as later they take up the Y. M. C. A. work at home among the foreign young men in the industrial and mining districts of their state.

What are the sources of the great river of immigration? A student of this subject reports his conclusions:* "The immigrants enter America in two great streams. One has

Herbert Francis Sherwood, in *Outlook*, June 6, 1908.

its rise among the historic hills of Palestine and receives tributaries from the ports of Greece, the Adriatic, Italy and the Azores. Its course lies over the blue waters of the Mediterranean and between the Pillars of Hercules. The other stream trickles across Russia to the shores of the Baltic and German border. In ancient Poland and on the wooded slopes of the Carpathian Mountains the chief tributaries have their source. These are made up of Slavic men who have toiled long on the land without making headway; of kerchiefed maids and matrons of the same race who have roughened their fingers, their faces, and their voices in the fields and go in search of husbands or to join them, and well-nigh destitute Jews attempting to escape from their poverty and political persecution at the same time. Across Germany, in well-worn converging courses, these rivers of humanity take their way to the ports of the North Sea—Hamburg, Bremen, Rotterdam, and Antwerp. As the broad stream sets out over the waters of the North Atlantic it is joined by the Scandinavians, English, Welsh, Scotch, and Irish.”

But why do so many leave the farms and

vineyards of Calabria, and Sicily, of Montenegro and the Trans-Caucasus, and the many far off regions of eastern Europe?

In the earlier days it was the potato famine which sent the Irish away from the Emerald Isle. So in other lands, every returning famine or war or over-taxation has sent a multitude to these shores of plenty. The pogrom at Kishineff and the "May Laws" stimulated Jewish immigration beyond measure. The glowing picture of work and wealth in the New World, set over against the poverty of the land and the cheapness of labor in the Old World, sent the young men on their long pilgrimage across the water.

That this was a stimulated immigration is evident to every student. The steamship companies used every art known to the advertiser in order to fill their steerage. All sorts of agencies were used that the most remote of the mountain villages might be reached with the good news of free land and well-paid labor far across the sea. The new law has forbidden this activity, yet ways are still found by which the glowing stories of wealth in America are put in circulation among the simple peasants.

But stimulated immigration though vast in amount does not equal in numbers that large class of aliens who are led to undertake the long voyage to America, because assisted by friends or relatives, who are already here. Usually the strong men of a village are the first to emigrate to the New World, but the wives and sweethearts left behind soon receive the passage ticket made possible by the higher wages in the land of opportunity. The glowing descriptive letters sent from America are read to the eager listeners in the far-away villages. The padrones and the bankers encourage the sending home of American publications printed in foreign languages. The installment ticket, tempts the immigrant to put all of his spare wages into passage money for the old folks at home. One Russian, coming from the Trans-Caucasus to Los Angeles, six years ago, was the means of bringing to that city 4,000 of his co-religionists, with all of the 25,000 of the remaining ones of their religious sect waiting for an opportunity to leave Russia without a passport and make the long journey to the Pacific shore.

No doubt many have come to this land be-

cause of the opportunity for religious liberty denied at home, yet few have even heard of our Declaration of Independence. A simple economic reason led the greater number to break with the past. An opportunity for labor and a chance to gain more of the good things of this life for themselves and their families were the usual reasons why the immigrant peasants were willing to desert their poverty-stricken farms in Europe. Because of possible wealth in the future, they gladly sold the few acres of their ancestral homes and exchanged the familiar labor of the farm for the harder and more hazardous jobs on the railroads, in the tunnels, mines, factories, or sweatshops of America.

They are coming by the ship-load, these peasants, and artisans of an older land. We may check the flow but we cannot stop it. Having used every effort possible in the way of selection on the other side, rigidly enforcing the laws against stimulated and assisted immigration, placing tried and true men as watchers of the gate that the inspection may be well-nigh perfect; deporting everyone to whom the law denies entrance, although that process

may be tragic, when we have done all this still there will remain nearly a million a year to be added to our population. But the optimist is not discouraged at that. The problem is half solved when you have analyzed it. The disease is well in hand when a diagnosis is made by the attending physician. That many leaders of thought are hopeful for the future is shown by words like these from some who are nearest the people. Jacob Riis says: "As I have seen them mix ore from far distant mountains in the great blast-furnaces of Pennsylvania, in order that the product may get just the right kind of strength and quality, so it may be that to this recasting of the race to make a people fit for the great destiny which we must believe the Almighty has marked out for the great American Republic, there need go men of all peoples and all lands, of the old and of the new dispensations."

What will these foreigners do to America when they get the power? Prof. Edward A. Steiner answers: "They will help you save it or they will aid you in destroying it. It is as much in your power whether they shall be 'leaven' or 'dynamite'."

The people of Montenegro, Poland, Hungary and Italy are worth the knowing. "If struggle for liberty means anything in the character of a nation, then these people have character; for their fields are drenched in martyrs' blood. Where in Hungary the poppy grows reddest, or in Italy the figs are most luscious, there the common people have shed their blood heroically."

Mr. David Blaustein, of the Chicago Hebrew Institute, speaking of the people he knows so well, says: "The immigrant comes to this country from a land of despotism and oppression, and finds America willing to allow him to indulge a broad view, freedom—in short, new life. He is the dreamer, the idealist, and loves America by contrast. He finds opportunity to develop and adopt the American customs, traditions, and spirit with an eagerness that is absolutely wanting in the American native, who looks on these privileges as his natural rights."

Another lover of the immigrant, writes: "When he comes to the land of the rich, the Italian will bring gifts beyond price, memories of beauty, of gray cliffs above a purple, ever-

changing sea, of a coast the loveliest in the world; and more precious than memories, he brings a beauty-loving nature and a joyous spirit. He does not know as he comes with eager looks toward his land of desire that more than he needs our freedom to work, do we need these gifts he brings."

As one who has spent many years as a neighbor to a multitude of aliens, the writer wishes to record his belief in the immigrant, in the possibility of Americanizing him in the best sense of being able to transform him from a menace, to our civilization to an aid in giving the best to those who come later.

Granted proper selection, inspection, deportation, there yet remains a great work to be done in order to transform the foreigners into fellow-citizens, and this larger service finds expression in the words, "protection, education and distribution." These last three nouns represent America's new duties to the alien. If the nation, as a whole, undertakes this work as heartily as she has that of transforming a desert into a garden, of breeding cattle of a higher standard, or of educating the people of the Insular Possessions, then

will the multitude be prepared for citizenship, and a larger brotherhood will be realized as the principles of democracy are translated into life.

The foreigner has been slow to assimilate for he has for the most part met our civilization in the rough. The worst side of all men was toward him, giving him a false ideal of American life. The slum was too often his only home, and this evil environment wrought havoc to his old time ideals of family life. His American neighbors too often met him with suspicion and hatred. The padrone first, and then the American contractor were ready to exploit his labor, the only thing which he had to give. His teachers were the ward politicians, the saloon keepers, or possibly the policemen. He was shown how to become a full-fledged citizen within a few months, at a time when American citizenship was exchanged for votes or money. No matter what his standing might be in the old country, be he merchant, artist, artisan, or farmer, here, because of his foreign tongue, he could be only a hewer of wood and a drawer of water, the servile laborer in the building of

a new nation. The "good people" of the church and school were not in touch with him, but rather looked upon the foreigners as a distinct class, separated from them by a great gulf. They were willing to send a missionary to teach them, but did not wish to have too close personal contact. Who is to blame that we have slums, and our courts and jails are filled with aliens branded as criminals? We, who have been too good to touch these strange people, can largely blame ourselves for they needed us as teachers—they called us, and we sent a proxy.

The immigrant is well protected in the great receiving stations, being given the most careful attention at every step of the way, from the gangplank to the gateway which opens outward toward the nation. When the gate swung open, the nation thought that its work was done, but this is the very point where the work of the new day must commence. A great governmental plan must be worked out, a plan for protection, education, distribution. A start has been made but the best thought of the nation must be given in order properly to develop this plan to its highest efficiency.

Protection—how can the immigrant be protected after leaving the battery or boarding a train. Thus far many homes and philanthropic societies have aided in saving thousands who might otherwise have been robbed of life or money or character. The government has given permission for representatives of these societies to labor with the immigrants within the enclosure of Ellis Island, where the society for the Protection of Italian Immigrants, the Industrial Removal Office, and a score of other social or religious organizations are doing a wonderful work with these people who are as helpless as children when landing in America. This is well, but there ought to be a national protective policy.

In discussing the protection of immigrant women, a writer says: "Many girls do not stop in New York and so come under the influence of the watchful societies. Suppose a girl has a through ticket to Chicago. The responsibility of the government ends when she is safely on the train, and the railway is not held responsible for her safe arrival. Suppose she loses her address, or the street number is wrong, or her friends fail to meet

her, or have moved, or any one of fifty things that may break the connection, has happened! Suppose a procurer meets her on the train (as they do) and she is induced to go with him? Her friends and relatives are anxiously awaiting her, and the government is not aware that she is lost. How long will it be before both begin to look for her together?

“At present nothing is done by the state or federal government to meet this great defect. The states do not know who are coming into them to live, or under what conditions. They make no effort to get into touch with the immigrants or help them to become citizens. What more simple than for each state to have its department or bureau, and to receive from the federal government the names and addresses of all immigrants coming in, to visit them and put forth an effort to make them into citizens? How else can the compulsory education law be enforced, when there are hundreds of children coming in who are never on the school roll and cannot be traced? How else can the child labor laws be enforced, when children slip from the station to the factory and are reported above the age which they

may look to be? The ship's manifest, with the ages, would enlighten many duped inspectors if the state had a copy of it from the federal ports. Such bureaus could also cooperate with other states and notify them of removals."

This may as truly be said of men, for the exploiters of the labor of men and boys are as eager for their victims as are the procurers of women.

Granted that the matter of selection, restriction and protection of immigrants will soon be well in hand, the problem of immigration from now on becomes essentially one of distribution. If a decade ago a wise plan of scattering the newcomers had been resorted to, many of the evils of the present day would have been avoided, but without a plan the ports of entry became congested centers, a menace to the general welfare of the nation and a detriment to the character and health of the aliens themselves.

This country cannot afford to have a large proportion of the new citizens swallowed up by the lower east-side of New York. The rest of the land needs the new blood, the brawn and the brains of these who are seeking

our shores. How can this distribution be effected? The various philanthropic societies, social and religious, with headquarters in New York have sent many thousands to distant parts of the country. The Jewish Industrial Removal Office, for instance, is thoroughly organized with correspondents in every city and with travelling agents, yet in nine years they have persuaded less than 50,000 persons to remove from New York. But 62,000 Jews arrived at Ellis Island during 1908, of which 44,000 remained in the city, almost as many as were removed in the nine years of the work of the Office. It is evident that something more than this must be done. Something on a large scale must be undertaken or else the Ghetto will rule the city and the Jew himself will degenerate.

The desire of some of the states, especially in the South, to secure desirable immigrants offers a new opening for distribution. Desiring to aid this movement, the government allows properly accredited agents of the states to work at Ellis Island among the new arrivals. The South offers a splendid field for the alien peasant with its millions of fertile acres await-

ing intensive cultivation. Many immigration societies have been formed in a score of states. In describing the work done by one of these societies, in North Carolina, Mr. Hugh Macrae says: "The United States Department of Agriculture has shown a willingness to co-operate actively with the state department in this work. From the knowledge obtained from the government soil experts other men were trained as experts, and surveys and maps were made of more than six hundred square miles of land. The reports of the soil experts exceeded our expectations. Options were taken on large areas which were best suited for the purpose of colonization. After the titles were examined and accepted by competent attorneys, corps of engineers were put in the field to make surveys, drainage plans, and layouts for farming communities and town sites. This required about two years' work of a large force of men.

"In the meantime, agents were sent abroad to study the sources of immigration, and the best manner of directing the immigrants to the desired locality. Demonstration farms were started so that the first arrivals could

be shown the best methods under the new conditions. The ditching, clearing, and fencing were first done by negro labor, and later by the colonists as they arrived. A good superintendent, who was a skilled agriculturist, was placed in charge of each colony, even when it contained only two or three families. As the cost of preparing for and securing the first arrivals was enormous, it seemed wise to nurse them with the greatest care.

“The Italian colony was started with seven families from Northern Italy. They were chosen from a district in the province of Venetia, and it may be interesting to know that our agent, upon investigation, found from the records that no serious crime had been committed in this district for more than four hundred years. To this can be added the statement that at St. Helena in three years there has not been a single lawless act. Five colonies have been established, with Italians at St. Helena, Hungarians and Hollanders at Castle Hayne, Poles at Marathon, Germans at Newberlin, and Hollanders and Poles at Artesia.”

That it is essential to the welfare of the nation that the immigrants be scattered over

a wide area in order to hasten the process of assimilation, has long been evident to students of the immigration problems, yet it was not until February 26, 1907, that an effort was made to embody this thought in law. Section 40 of the revised immigration laws, passed at that date, established a Division of Information, in the Bureau of Immigration. The law reads as follows:

"It shall be the duty of said Division to promote a beneficial distribution of aliens admitted into the United States among the several states and territories desiring immigration. Correspondence shall be had with the proper officials of the states and territories, and said Division shall gather from all available sources useful information regarding the resources, products, and physical characteristics of each state and territory, and shall publish such information in different languages and distribute the publications among all admitted aliens who may ask for such information at the immigrant stations of the United States and to such other persons as may desire the same."

All persons interested in the subject of immigration should study this law very care-

fully for it seems to offer the solution of a vexed question, since in the carrying out of of the work of the Division lie great possibilities for effective service and for the enlargement of national aid, not alone to the aliens but also to Americans in need of economic assistance. Terrence V. Powderly was appointed chief of this Division, and immediately undertook the organization of the work, although the hard times greatly hindered effective work. His methods used to find labor and cheap land that the immigrants might be widely distributed are reported by him in substance as follows:

Letters were sent to each governor and to other state officials asking for such information as they had to give relative to the possibilities in each state. Letters were also sent to manufacturers' associations and individual employers of labor and to labor unions, enclosing this list of questions:

Where is the demand for workmen most urgent?

What class of labor is needed?

Are settlers on land needed?

What nationalities or races would be preferred?

Does your state (or territory) offer inducements to settlers on lands?

If strikes, lockouts or other difficulties exist, state fully the cause of the same.

The answers returned gave much available information.

Through the courtesy of the Bureau of Statistics of the Department of Agriculture, the township correspondents of that Department to the number of 35,000 returned information on blank forms and these were filed in the office for further use.

The editors of all agricultural papers were asked to run news items concerning number of immigrants and others who might be sent where there was a scarcity of farm laborers. Nearly 3,000 postmasters of county seats were corresponded with as to whether small farms could be leased or purchased in the locality; with price and terms of sale with details as to climatic conditions, soil, crops, school, church and transportation facilities. Volunteer information of this kind from any part of the land is eagerly sought for as offering a good method for distribution of the aliens.

Over 2,000,000 cards were sent out through

the rural delivery routes urging the farmers to make use of the Division when needing laborers. Correspondence was also had with Chambers of Commerce, Boards of Trade, Bureaus of Labor and Statistics, Boards of Agriculture, and with factory inspection departments of various states.

A liberal construction of one clause of the law opens the way for making this Division a great national Employment Bureau vieing with that of New Zealand in its effectiveness. The law directs that information gathered by the Division be given "to all who may ask for it at the immigrant stations and to such others as may desire the same." "To such others" can only refer to non-alien. When this Division has headquarters in every city, it can be made largely to supersede the ordinary employment bureau, and will be free to everyone. In this way, the opportunity to labor might be assured to all.

Mr. Powderly recommends certain changes which would greatly strengthen the law in practice. Europeans are quite ignorant of the resources of the United States. Literature must be provided and placed in the hands

of the immigrants already here, hoping that they may send it home and by this means attract a still better class of people. Representatives of the government should travel in the steerage, using the time of the passage in distributing literature and informing the passengers as to positions and possibilities elsewhere than at the port of entry. He suggests that a hall be furnished at every immigrant station where the people could be gathered to receive information through lectures in their own language, and by means of stereopticon pictures.*

***RECOMMENDATION OF MR. POWDERLY FOR THE
AMENDMENT OF SEC. 40.**

"Section 40. Authority is hereby given the Commissioner-General of Immigration to establish, under the direction and control of the Secretary of Commerce and Labor, a division of information and distribution in the Bureau of Immigration and Naturalization; and the Secretary of Commerce and Labor shall provide such assistance, clerical or otherwise, as may be necessary. It shall be the duty of said Division to promote a beneficial distribution of aliens admitted into the United States and of persons resident therein among the several states and territories, desiring immigration. Correspondence shall be had with the proper officials of the states and territories, and said Division shall gather from all available sources useful information regarding the resources, products, and physical characteristics and industrial conditions of each state and territory, and such other information as may be useful or necessary and shall publish the same in different languages and distribute the publications among admitted aliens, either at the immigrant stations in the United States, or at such other points as may be found necessary, and to such other persons as may desire the same, and the Division of Information and

The completion of the Panama Canal in 1915 will make it possible to distribute immigrants from new centers on the Pacific Coast, for undoubtedly all the great steamship lines will run ships direct from the Old World to the Pacific ports, carrying steerage passengers as they do now to New York, Boston, and other Atlantic ports. It is to be hoped that the work of this Division may be perfected before that date so that Los Angeles, San Francisco, and other coast cities may be saved from the fearful immigrant congestion found at present in the eastern cities.

Some success has come in the effort to divert immigration to Galveston. The mayor of that city welcomed the first ship bringing Russian

Distribution may distribute this information in the industrial centers as hereinafter provided, and on shipboard after leaving the last port of foreign embarkation, under such regulations as the Secretary of Commerce and Labor shall prescribe. Branches of the Division of Information and Distribution may, in the discretion of the Secretary of Commerce and Labor, be established in the various industrial centers of the United States, where facilities shall be afforded to disseminate the information gathered in conformity with this act. The secretary of Commerce and Labor may, whenever it is deemed necessary to verify information furnished to the Division of Information and Distribution, detail officials thereof for that purpose to any part of the United States. All expenses incurred in establishing, equipping, and maintaining the said branch offices for the accommodation of the said Divisions in the city of Washington, if necessary, and of making the investigations herein authorized, shall be paid from the permanent appropriation, 'Expenses of Regulating Immigration'."

Jews. The Jewish leader replied to the mayor's words of welcome, saying: "We are overwhelmed that the ruler of the city should greet us. We have never been spoken to by the officials of our own country except in terms of harshness, and although we have heard of the great land of freedom, it is very hard to realize that we are permitted to grasp the hand of the great man. We will do all we can to make good citizens."

South America is the point of destination for many of the Latin races. Argentina for instance received in 1908, 250,000 immigrants. On landing they were all given five days' free board and lodging; railroad tickets were given them to any point designated by them, with support for two days after arrival. All mechanics or laborers who applied were found places by the National Bureau of Labor. Cannot we in the United States do as well and thus make fellow-citizens out of foreigners?

To the great words already discussed, there must be added another, even greater and that is "education." The public school is working a miracle of transformation among the alien children, but adult education has but just

commenced. Cannot the government follow every immigrant from the time he arrives until he becomes a naturalized citizen, and see that not alone does he receive employment but that every chance is given him for an education? Night-schools of citizenship, camp schools, public schools, opened as social and recreation centers can greatly aid in this matter of proper adult education. Adult recreation must be furnished as a counter attraction to the saloon; national plays like Italian Pallone and Boci must be available to all the foreigners. Let the nation, the city, and the state work together in making the New American, and the immigrant problem will soon be solved. Says David in Zangwill's play, "The Melting Pot," "America is God's crucible into which the nations are being poured to come out the new American. Down at the Educational Alliance the other night, I saw a thousand little Jews salute the American flag and my heart was thrilled. This is what they said:

"Flag of our great Republic, inspirer in battle, guardian of our homes, whose stars and stripes stand for Bravery, Purity, Truth,

and Union, we salute, thee! We, the natives of distant lands, who find rest under thy folds, do pledge our hearts, our lives, and our sacred honor to love and protect thee, our COUNTRY and the LIBERTY of the American people FOREVER.' "

That the government is determined to secure all the facts regarding immigration is shown by the appointment of a joint Commission of Immigration which is delving deep into every field of investigation. A preliminary report deals with oriental aliens and other excluded classes, peonage, charity among immigrants, white slave traffic, conditions of steerage, anthropology, congestion in large cities, alien criminality, competition of immigrants, school inquiries, administration of the immigration laws, distribution of immigrants and other questions.

While the preparation for citizenship is important, the method of inducing an alien into his duties as a citizen must receive more careful attention, calling perhaps for the passage of new laws. While Congress passed a naturalization law as far back as 1795, its enforcement was left to the states with no

central control, so that there grew up in this country very great frauds resulting in the cheapening of citizenship and a debauching of the new citizen.

In 1904, President Roosevelt appointed a Commission and the law which they reported was passed in June 1906. * Everyone interested in citizenship should inquire locally as to the proper enforcement of this law and see to it that all fraud is eliminated and thus deal bad politics a telling blow. You and I have a duty to perform in the great work of transforming the foreigner into a fellow-citizen.

*See Appendix for digest of law.

CHAPTER XII

Serving Others

A need of the day is for men who can serve their fellows. There is an equal need for a nation that can serve its people. "*Ich dien*" was the splendid motto of the Black Prince; it might also stand as the foreword of democracy.

In the not far distant years, the greatest nation will not be the one with the mightiest dreadnaughts, or the largest standing armies; it will not be the one with greatest area nor the most numerous colonies, but the one which looks best after the health and happiness of its people; which guards its mothers and its children as its choicest possession; and which reckons beauty and chastity and temperance as virtues to be cultivated by all of its citizens.

Without boasting, cannot we of the United States claim that, as a nation, we have started on the good way of serving others? It is only a start, it is true, but the way grows broader and brighter as the years slip by.

While we have already reviewed much of the work of these departments of the government which are especially interested in human uplift, attention must be called to still further work carried on by the nation. In some respects, one of the most important laws ever passed was that which established the Department of Commerce and Labor, for this Department has to do with the protection of the American laboring man and with the checking of the abuses on the part of capital.

The preamble to the Constitution lays down broadly two great aims of government; first, the defense of the life, liberty, and property of the citizen, and second the promotion of the general welfare. This gives a constitutional basis for every law which may be passed with these objects in view. Acting under these provisions of the Constitution, this Department in its Bureau of Labor is giving national aid and supervision to the laboring interests of the country, giving special attention to the relation of labor to capital, the hours of labor, the earnings of laboring men and women, and the means of promoting their material, social, intellectual, and moral prosperity.

Because of the existence of this Bureau of Labor, legislation for the comfort and safety of American labor has been much greater in amount and in effectiveness, since its creation in 1885, than in all of the previous years in life of the government.

The educational features of this Bureau are of great value. In a recent bulletin the fact is clearly brought out that in the United States an immense amount of human life is wasted and much unnecessary and preventable injury is done to health and strength, with resulting physical impairment, amounting to a very considerable economic loss to the nation as a whole.

The conservatism of the world is a bar to such remedial legislation yet this Bureau will in time break down this barrier by constant agitation and education, showing what has been done the world over for the cause of labor.

Ever since the Civil War, commercial organizations have repeatedly memorialized Congress for the establishment of a Department of Commerce. This appeal was granted by the creation of a Bureau of Manufactures in

the Department of Commerce and Labor. This Bureau collects and collates information about manufacturing industries and markets both in this country and abroad. A special article on the work of this Bureau says:

“Its aim is to promote the sale of our articles in foreign lands, and the value of its service to the manufacturer is recognized when the Bureau sends a special message to him concerning a market for his goods, discovered in the course of its regular investigation. For example, agents were sent to China to get specimens of fabrics, and two hundred sets of these samples were furnished to manufacturers of cotton and to textile schools, that they might be prepared to supply the Chinese market with goods salable in that country. Agents of the Department have also been investigating South American, Mexican, and Japanese markets, and reports from these countries likely to be of use to certain manufacturers have been mailed to them, with a view to their losing no time in sending out their goods.”

One of the duties of the United States consuls and consular agents in every land is to

gather and forward such information as will make it possible to expand the trade of the nation until our commerce shall be world-wide.

If trade and commerce were governed only by the law of supply and demand, then the duty of the government would be to stimulate and safeguard the business interests of all the people. But the organization of trusts and combines have brought forth problems which now call mightily for solution. In order to save the public from being victimized by these newly formed corporations, it was necessary to create the Bureau of Corporations, with power to investigate and if necessary restrict their action. This mighty potent force is something new in Republican government for it gives the President almost inquisitorial powers, commanding the secrets of every business enterprise in the country. The law reads as follows:

"The said Commissioner of Corporations shall have power and authority to make-under the direction and control of the Secretary of Commerce and Labor, diligent investigation into the organization, conduct and

management of the business of any corporation, joint-stock company or corporate combination engaged in commerce among the several states and with foreign nations, excepting common carriers, subject to 'an act to regulate commerce,' approved February 4, 1887, and to gather such information and data as will enable the President of the United States to make recommendations to Congress for legislation for the regulation of such commerce, and to report such data to the President from time to time as he shall require; and the information so obtained, or as much thereof as the President may direct, shall be made public."

Under this law, proceedings have been undertaken against the Standard Oil Company, and against many other corporations apparently breakers of the law.

Under this Department of Commerce and Labor, industry is encouraged, labor is protected and lawbreakers are punished. This is surely for the good of all the people.

The Census Office, a division of this Department, is no longer an intermittent bureau but a permanent continuing one, whose duty

is to gather all manner of statistics as to population, agriculture, and manufactures, as well as to take the usual census every ten years. This makes it the general statistical clearing-house of the United States, growing in importance as the years pass by.

The government wishes to be of service to those who are of inventive mind, for it furnishes anyone who writes to the Patent Office publications at five cents each, containing the description of all patents granted, up-to-date in any class, furnishing suggestions as to the new inventions and acting as a guard against the possibility of infringement. The manufacturer who desires to keep to the front in his line may subscribe for the "*Gazette*," a magazine published once a week at \$5.00 per year, containing the descriptions and pictures of all the new inventions.

If you are in doubt as to the exactness of any of your weights, measures or instruments, you may have them tested by the Bureau of Standards at the actual cost of the test. Thousands of letters pour into the various departments every day, each one receiving a courteous reply and usually containing the

information wanted. Remember the government does not advertise, but it has a vast amount of information waiting for you if you ask for it, at the cost of a single postage stamp.

The government has been of great service to those who live along the banks of the great rivers. It has built enormous levees, amply protecting from the danger of flood, hundreds of miles of rich valley farm land and many riverside cities. Even with this protection, there would be great damage from the annual floods were it not for the warnings issued by the Weather Bureau. The chief of this Bureau has divided the nation into forty-four "river districts" each with many sub-stations. The local officials are constantly employed in gauging the streams, measuring the snows and rains, and daily sending to headquarters their reports to be made into maps as a basis of reports to be sent out by the river guardians. The early warnings sent out a dozen years ago were received contemptuously and few acted upon them, although they were signed by the chief in Washington. The disastrous flood of 1897, which overflowed 13,000 square miles of land, destroying life and property

because the warning had not been acted upon, brought its lesson to those who were once incredulous.

The people are now ready to act promptly when the Bureau telegraphs the unwelcome news that the flood will reach them in from two to ten days, according to their location, up or down the river. This gives time for the entire country-side to turn out for the purpose of fighting the flood, strengthening the levees or removing valuable property to higher ground. In time, by building stronger levees and by forecasting floods, the government will be able to make the dwellers on the lowlands as safe as are the farmers who dwell under the dykes of Holland.

In the interest of all the people, the Geological Survey is busy examining accurately all mineral lands and guarding this information with great care until it may be released at the same time to all interested parties, thus largely avoiding monopoly by the few. Experts under the Geological Survey have long worked on the composite value of the explosion engine, as compared with that of steam power. The experiments seemed to show that

the explosion engine fed with gas made direct from coal by a machine devised for that purpose, is certain to furnish the stationary power in this country for the next industrial epoch.

The tests on the use of alcohol for power have been successful, showing that in the tropics where coal and oil do not occur, the luxuriant vegetation makes it possible to distill alcohol at small cost. This type of engine may displace the present equipment in the war vessels and commercial ships, so that the enormous expense of maintaining great coaling stations abroad may be eliminated. Another advantage in the use of the gas and alcohol engines is found in the almost entire elimination of smoke and dirt, the bane of all our industrial districts.

The government has always been liberal in the payment of pensions to the men who fought in its wars. At present there are over a million pensioners on the rolls of the pension office. The last pensioned soldier of the War of 1812 and the last surviving widow of the Revolutionary War have now passed away, but two daughters of Revolutionary soldiers and

about 500 widows of the War of 1812 still receive their regular pensions. This item indicates that though another war may never occur, there will be work for the Pension Office for a century to come.

In order to serve the scattered people in its vast domains, the government has entered into the business of owning and operating far beyond the dreams of the early fathers of the nation. The government built the Washington Alaskan telegraph and cable system, to carry the news of the world to the far-off Yukon Valley. In laying the cable, the government found it impossible to carry it across Norton Sound. Wireless towers were erected on either shore, 107 miles apart, thus closing the break in the line of transmission. This federal line, by means of telegraph, cable and wireless, transmits daily the news of the whole world to far-off Alaska, and this news is discussed in the streets of Nome by 6.00 P.M.

The government has not hesitated to open abattoirs in Philippine cities and cold storage plants in Manila, while government saw-mills, mines, stores, farms and tenements are conducted successfully in these islands.

Yet there are still those who say that this is the field for private initiative alone and not for public ownership.

In the industrial life of this nation, it is not difficult to show that we have been in the business of "making steel and killing men"; of slaughtering thousands by street car and railroad, so that life has seemed cheap as compared with the estimate placed upon it by many other nations. The story of this slaughter has been voiced in Congress and many bills have been introduced intended as a remedy, a few of which have been enacted into law, but whatever has been done can be considered only as a small beginning as the need of relief is so great.

The Inter-state Commission in order to find methods of preventing railroad accidents, appointed under act of Congress a "block signal and train control board to investigate block signals, automatic stops and cab signals, and other devices designed to promote the safety of railroad operation." The reports of this Board when completed will furnish a basis for proper legislation affecting railway control.

While not so directly in touch with commercial and industrial life, yet the nation is in business to such an extent that it will be forced to pass laws covering industrial accidents. The government must give attention to the use of safety devices as well as to the matter of compensation for industrial accidents, the loss through which constitutes annually "an industrial Bull Run." That such compensation must be on a basis of the risk of the industry, rather than on a basis of negligence seems inevitable.

We have been making paupers under our industrial system. To abolish pauperism and poverty will call for the best thought in city, state and nation. But in the meantime, while pauperism and poverty continue, efforts must be put forth to discover the cause and with courage to apply the cure as the proper methods of treatment are made evident.

In the prefatory note to the article by Charles Edward Russell on "The Passing of the Poorhouse," the editor of one of our popular magazines* says:

"They are abolishing the poorhouse in

Hampton's Broadway Magazine, Dec., 1908.

Europe. Parliament has just passed the Old Age Pensions Bill, which has profoundly agitated England. Germany, France, Australia and New Zealand have all taken drastic steps in the same direction. Excepting our own, the foremost nations of the world are combining in a human battle against poverty in old age. We, in turn, must soon awaken to the necessity and economy of pensioning the aged poor.

"To-day there are some 2,500 almshouses, with more than 80,000 permanent inmates, in this country. According to the latest government report their annual cost of maintenance is \$37,306,135. This does not include the enormous property investment, the interest on which, together with the millions spent for maintenance, would afford every public pensioner in this country nearly \$100. a year."*

The demand for annuity or retiring pensions for governmental civil service employes is growing insistent and in some form must soon be granted. If a pension is to be granted to employes of the government, why not to all citizens who have passed a certain age and fulfilled the required conditions.

That the burden of taxation which has always rested heavily on the shoulders of the great middle class and the masses in general is now to be shifted or at least more equally distributed is shown in the discussions concerning the inheritance and income tax. It is to be hoped that the proposed income law will be ratified by the states and thus another step taken toward the true democracy.

Although much has been said in a previous chapter concerning the government work in the life-saving business, the record of the nation's service in the cause of health was not completed. To this must be added the work of the hydrographer of the U.S. Geological Survey who is waging an educational campaign on the subject of danger from the pollution of rivers. The report points out that not only thousands of lives could be saved were the streams kept pure, but that hundreds of millions of dollars are represented by the lives snuffed out. Heretofore there has been but little thought on the subject of stream pollutions, each city dumping its sewerage into the nearest stream, only to pollute the drinking water of the cities and towns farther down.

The people are becoming aroused through the agitation and education on the part of the government; various methods for the purification of city sewerage are being installed and the purified product discharged into the rivers without damage to the water users below. That it pays to give attention to the disposal of sewerage is shown by the result of an investigation of the cost of typhoid fever in one of the large cities on the Ohio River. "In one year in two wards, 149 cases cost the community \$24,345, and on this basis the 5,637 cases the city had in the year cost \$725,000, a sum ample to give a perfect system of clean water and thus avoid this monetary loss, without considering the humanitarian side." The nation which can drive out yellow fever from the Isthmus of Panama ought to be able, in co-operation with the states and municipalities, to exterminate typhoid fever from the entire land.

Because the furnishing of clean milk to the public is a national problem, the government is giving special attention to the safeguarding of this necessary food supply through the Department of Agriculture. The report of the

Secretary says: "The dairy cow maintains an industry whose products are worth more than the wheat crop or the hay crop or 'King Cotton.' They go to almost every one of the 19,000,000 families of the country as milk or butter or cheese, but more especially as milk. It is a matter of greater concern to the public than ever before that milk and butter should be wholesome and unadulterated. The quality and healthfulness of these products largely depend on bacteria. It has been necessary to educate the dairyman and the public in the exclusion of injurious bacteria and in the use of beneficial bacteria of such kinds as impart the desired flavors to butter and cheese. Such education has been immensely promoted by the work of the Department and of the experiment stations."

This Department has adopted the slogan of Gail Borden, sounded a half century ago that "Clean milk is pure milk," and it has undertaken to educate the people of a nation and bring them up to this ideal. Under the direction of the Dairy Division, the first cream and milk contest in the country was held in Chicago, in 1906, with many states and

cities holding similar contests since that date, each contest having the presence and advice of the national experts. The object of the national contest was, first, educational; second, to determine the possibilities in the handling and keeping of milk and cream produced under sanitary conditions; third, to test a score card for rating fairly and accurately this class of dairy products. Much interest was shown in this contest from the beginning, and exhibits were sent from thirteen different states. The results according to the published report were most gratifying, one of the most striking being the demonstration of the fact that clean milk, held at a low temperature, could be shipped a thousand miles across the country and kept sweet for a period of over five weeks.

It is to be hoped that this co-operation of municipal, state and national boards of health may be rewarded eventually in the saving of millions of babies' lives.

Notwithstanding the agitation by vegetarians, this country is still a meat-eating nation, the per capita consumption being 180 pounds per annum, amounting to 30 per cent. of the

cost of living. Since the meat-producing animals are subject to disease which may be transmitted to man, the careful inspection of meat becomes of great sanitary importance. An Inspection Act passed Congress in 1891, but that its provisions were not stringent enough is shown by the revelations in the meat scandal which attracted so much public notice. Because of this revelation and because foreign countries refused to purchase our surplus uninspected meat products, Congress was led, in 1906, to pass the present rigid law which empowers federal inspectors to assume supervision not only of the slaughtering but also of the care, curing and shipping of all edible products in those establishments operating under federal inspection.

The following description of the process is summarized from a recent health report:

"This supervision consists, first, in ante-mortem inspection of the animals to be slaughtered; second, in a macroscopic inspection of all carcasses at the time of slaughter, and, third, in a close supervision of the curing, processing and marking of all meats handled in the establishment.

“The ante-mortem inspection consists in having all animals destined to establishments, operating under Federal inspection, inspected by skilled men for evidence of any disease that might render the flesh unwholesome for food; and in case an animal is found to be so diseased, it is tagged for identification, and a notice is forwarded to the inspector conducting the post-mortem inspection, giving the reasons for tagging the animal and such other information as may be deemed advisable. Such animals are killed separate from others and are disposed of in accordance with the pathological lesions presented, in connection with the information obtained through the ante-mortem inspection.

“The post-mortem inspection consists in making a close macroscopic or digital examination, of, first, the lymph glands of the head and throat; second, the viscera and accompanying lymph glands; and third, an examination of the serous membranes, the vertebrae, etc., after the carcass has been split. In case lesions or conditions are discovered that render the carcass or a part thereof unwholesome or unfit for food, it is condemned and destroyed for food purposes.

"A meat inspector is placed in the cutting room to see that the work is done in a cleanly manner and to secure and condemn any meats that are allowed to become dirty, or diseased parts that may have escaped detection on the killing floor; other employes are stationed in the pickling and smoking departments to see that the work is done in a cleanly manner, that no deleterious preservatives are used and to inspect the meats being shipped from these departments in order to detect and condemn such as may have undergone deterioration during the curing processes; similar supervision is given to the canning and sausage departments to see that the products are handled in a cleanly and sanitary manner, and that no spoiled or diseased meats are used, and that all products are branded what they are. Strict supervision is exercised over the rendering and refining departments to see that none but clean, sweet, wholesome fats are used, and that the products are properly branded.

"The sanitary conditions of the establishment are looked after and it is required that all of the work of handling and caring for the

meats and meat food products be done in a cleanly manner by clean workmen, using clean utensils. Proper facilities for the thorough disinfection of the workmen's hands and tools that may become contaminated in the handling or cutting of diseased tissues, and suitable dressing rooms and toilet facilities for the employes are required."

This is good so far as it goes, but it must be remembered that under our system of government only such packing houses as have interstate traffic are subject to federal inspection. That leaves all abattoirs in small towns and country districts without such beneficial legislation, except as the state or local authorities may enforce the law. Because of this, two-fifths of all the meat used is without federal inspection, because not shipped out of the state.

The underlying principle of all pure food legislation is found in this statement from a message by President Roosevelt, "That the public welfare outweighs the right to private gain and that no man may poison the people for his private profit."

For over twenty years the Bureau of Chem-

istry has carried on investigations relative to the adulteration of foods. The cause which led to this activity is found in the then common practice of substituting glucose for honey and oleomargarine for butter. The important results of the investigations concerning such adulterations led to the passage of the "pure food law" in 1906, which law forbids the importation into the United States, the exportation from the United States, the introduction into inter-state commerce, and the manufacture and sale in the District of Columbia and the territories of misbranded and adulterated food and drugs.

The law is administered under the direction of the Secretary of Agriculture and provides that the Secretary of the Treasury, the Secretary of Agriculture and the Secretary of Commerce and Labor shall make uniform rules and regulations for carrying out its provisions.

The description of the workings of this law is summarized from the national reports:

The organization charged with the enforcement of the law includes inspectors who procure samples for analysis and information

regarding the manufacture and sale of food and drugs; chemists and clerks, in the laboratories of the Bureau of Chemistry in Washington and in the branch laboratories in other cities, of which sixteen are now in operation and three are being installed; the Board of Food and Drug Inspection, whose duties are to consider all questions arising in the enforcement of the Food and Drug Act of June 30, 1906, upon which the decision of the Secretary of Agriculture is necessary; to consider and supervise all correspondence involving interpretations of the law, and to conduct all hearings based upon alleged violations of the Food and Drug Act of June 30, 1906.

Information secured by the inspectors and laboratories regarding violations of the law is reported by the Chief of the Bureau of Chemistry to the Board of Food and Drug Inspection, which, when the charges appear to be sustained, makes recommendations to the Secretary of Agriculture regarding the exclusion of adulterated and misbranded food and drugs offered for importation, and prosecutions for the sale of domestic goods in violation of the law. All persons charged with

violations of the law are afforded a hearing at which they may introduce testimony.

One way of testing the deleterious effects of adulterated foods is by means of the "poison squad," which consists of young men who volunteer to eat these foods during a certain length of time, the evil effects being carefully noted. Much of the success in enforcing this law is due to the careful scientific work carried on by Dr. H. W. Wiley, the chief of the Bureau of Chemistry. This man is honored throughout the nation for his twenty-five years of faithful altruistic services in behalf of the people, notwithstanding the desperate efforts on the part of manufacturers of adulterated food and drugs to vilify him and destroy his power. The reason for this is made evident by the report of Dr. Wiley. "The progress of this work," he writes in the *Saturday Evening Post*, "led to the most surprising revelations as to the vast extent and character of food adulteration. It was seen that there was scarcely any article of food which had not been more or less tampered with for improper purposes—for it must be admitted, it seems to me, that all adulteration of food

products is improper. The data obtained revealed the fact that food adulteration was generally accomplished in one of the following ways:

“First, the abstraction of some valuable ingredient with or without the substitution of a less valuable material. An illustration of this form of adulteration is seen in the partial skimming of milk and selling the product as ‘whole milk.’

“Second, the addition of an ingredient to a food product for the purpose of increasing its bulk with a less costly ingredient. An illustration of this is seen in the practice of adding water to milk.

“Third, the imitation of a food product by the use of a substance entirely different in its nature and properties. This form of adulteration is seen in the substitution of oleo-margarine for butter, or glucose for honey, and melted sugar for maple syrup.

“Fourth, the coloring of a food product so as to make it appear of a better quality than it really is, or at least to induce the consumer to regard it as more valuable. This form of adulteration is illustrated by the coloring of

white butter so as to make it a deep yellow; by the addition of aniline dyes to colored mixtures to make them resemble the natural color of fruit, as in the manufacture of artificial jams, jellies and marmalades; and the addition of sulphate of copper to green peas and beans.

"Fifth, the addition to a food product of a chemical antiseptic having, in the quantity used, no perceptible taste or odor, and thus not revealing itself in any way to the consumer. This form of adulteration is seen in the very common use of such chemical antiseptics as salicylic acid and its compound borax and boric acid, sulphurous acid and its compounds, benzoic acid and its compounds, formaldehyde chlorides and other substances. The addition of such antiseptics to foods tends to preserve them from decay.

"Then there is the misbranding of a food package, either in respect of the country or place where made or the contents of the package. This form of adulteration is illustrated by the labeling of maple syrup made in other states as pure Vermont maple syrup; by labeling brands of olive oil not made at or near Lucca as Lucca olive oil."

The battle for pure food is not yet won, but assisted by state and municipal laws the possibility of poisoning from adulterated food is becoming more and more remote.

Dr. Wiley has sought to determine how long it is safe to keep food in cold storage. These experiments were carried on in a room in two cold storage warehouses, one in Philadelphia and another in Washington, the methods of which are described as follows: In the compartments of each room were placed, when they were in season and most abundant, various animal foods. In quail season Dr. Wiley stored one hundred and forty-four quail of the same age and especially shot under his supervision. He stored them, half drawn and half undrawn, after putting aside a dozen to be served to a jury of men who are to compare the flavor of these fresh birds with that of the remainder, kept on ice. Of these latter, twelve or eighteen to be taken out of storage every three months. Some to be analyzed, some examined for microbes and ptomaines, and some cooked and served to the same jury which noted the flavor of the fresh quail. Every three months the experiment was to

be repeated until the jury found the quarterly installment too "gamey," or until poisonous microbes or ptomaines appeared. The same tests were made with poultry, fish, and meats.

The government is not satisfied to guard the food supplies only but the nutrition experts of the Agriculture Department are teaching the home-makers the value of foods and the best methods of preparing them. This work in home economics is of value to every home in the land.

The Office of Experiment Stations reports that "the interest in the scientific study of home problems is a growing one, as is shown, for instance, by the important place such problems occupy in the programmes of women's club work, in the popular press, in farmers' institute and university extension work, in the plans of settlement workers and similar organizations for home betterment, in the extension of courses in home economics branches in schools and colleges, and the recognition of such lines of work as possessing true educational value, as well as by the increasingly large number of trained investigators in agricultural colleges, medical col-

leges, universities, state boards of health, and similar institutions, who are giving their attention to the solving of the many complex problems pertaining to food and nutrition.

“In connection with the nutrition investigations of this Office a large fund of information has been collected regarding the relative value of different foods produced on the farm, ranch and garden, and the effect on nutritive value of milling and other manufacturing processes; the comparative digestibility; the relative merits of different methods of combining foods to secure a rational and palatable diet; the comparative economy of different methods of cooking and preparing foods; the effect of different methods of storing and handling food in the home, palatability, wholesomeness, and nutritive value, and on related questions. As a result of these investigations some sixty technical bulletins have been prepared reporting the details of the experimental work, as well as some thirty-five farmers’ bulletins and similar publications, in which the practical results and general information along similar lines are set forth in such a way that they may be useful to home makers and

others interested in general questions of food nutrition and home management. That the technical bulletins are appreciated is shown by the demand which is made for them by investigation in the United States and elsewhere, and by the extended use which is made of the results reported by writers of text-books, and reference works, and by scientific workers in general. That the popular bulletins are used extensively by the people is shown by the fact that 3,000,000 copies of the sixteen farmers' bulletins on nutrition topics now available have been distributed, and it should be said in this connection that these publications are not sent out broadcast, but are distributed only on request."

In this way the government is coming into very close contact with the people, showing that it is surely in the work of human uplift. What Dr. Wiley and others have done for pure food, Anthony Comstock has done for purity of morals. As an officer of the government, his work has been to prevent the use of the mails to carry indecent matter, books, pamphlets and pictures, intended to corrupt the youth. Many tons of printed

matter and plates have been destroyed through his efforts, thus saving thousands of children from the debasing influences of the vile and offensive matter.

While there are many who are studying the question of conserving our natural resources, there are also those who are giving much thought to the conservation of our human resources. Agitation concerning child saving is at last attracting the attention of the government and the time is not far distant when the federal government will give for the conservation of child life as much money as it does to improve the breed of cattle or to destroy the Gypsy moth.

The child of today is the citizen of tomorrow. We have no right "to squander our incalculable treasure of childhood through child labor, slum conditions, lack of education, or incarceration in institutions where the ideal is to stifle all individuality and turn the children out formed in one mold." Strongly believing in this sentiment, President Roosevelt summoned a Conference on Dependent Children which met at the White House in January, 1909. Great as has been the success of the

Conservation Congresses held in Washington, they were not more far-reaching than this one. Social workers from all over the nation gathered at his bidding. This body represented divergent religious beliefs and methods of child care, yet all agreed with the President that "each of these dependent children represents either a potential addition to the productive capacity and the enlightened citizenship of the nation, or, if allowed to suffer from neglect, a potential addition to the destructive forces of the community." This memorable gathering after free and open discussions for two days, finally united in a most remarkable set of resolutions. Although representing institutions containing nearly 10,000 dependent children, this conference declared against institutional life only as a temporary expedient, and then by the use of the cottage system, rather than by the congregate plan, urging home care under state supervision as a substitute. The report of the Conference says in part:

"Home life is the highest and finest product of civilization. It is the great moulding force of mind and of character. Children should

not be deprived of it except for urgent and compelling reasons. Children of parents of worthy character, suffering from temporary misfortune, and children of reasonably efficient and deserving mothers who are without the support of the normal breadwinner, should, as a rule, be kept with their parents, such aid being given as may be necessary to maintain suitable homes for the rearing of children. This aid should be given by such methods and from such sources as may be determined by the general relief policy of each community, preferably in the form of private charity, rather than of public relief. Except in unusual circumstances, the home should not be broken up for reasons of poverty, but only for considerations of inefficiency or immorality.

“The most important and valuable philanthropic work is not the curative, but the preventive—to check dependency by a thorough study of its causes and by effectively remedying or eradicating them, should be the constant aim of society. Along these lines we urge upon all friends of children the promotion of effective measures, including legislation, to prevent blindness, to check tuber-

culosis and other diseases in dwellings and work places, and injuries in hazardous occupations, to secure compensation or insurance so as to provide a family income in case of sickness, accident, death, or invalidism of the bread-winner; to promote child labor reforms, and generally, to improve the conditions surrounding child life. To secure these ends we urge efficient co-operation with all other agencies for social betterment.

“As to the children who for sufficient reasons must be removed from their own homes, or who have no homes, it is desirable that, if normal in mind and body, and not requiring special training, they should be cared for in families whenever practicable. The carefully selected foster home is for the normal child the best substitute for the natural home. Such homes should be selected by a most careful process of investigation, carried on by skilled agents, through personal investigation, and with due regard to the religious faith of the child. After children are placed in homes, adequate visitation, with careful consideration of the physical, mental, moral and spiritual training and development of each child,

on the part of the responsible home-finding agency, is essential."

This Congress urged upon the Federal Congress the passage of a bill creating the Children's Bureau in the Department of the Interior to collect and disseminate information affecting the welfare of the children. Later, in the message to Congress, President Roosevelt redeemed his pledge to the White House Congress by sending a message urging the passage of the bill. While reported favorably, the bill has not yet been enacted into law.

The bill provides:

"That the said Bureau shall be under the direction of a chief, to be appointed by the President, by and with the advice and consent of the Senate, and who shall receive an annual compensation of five thousand dollars. The said Bureau shall investigate and report upon all matters pertaining to the welfare of children and child life, and shall especially investigate the question of infant mortality, the birth rate, physical degeneracy, orphanage, juvenile delinquency and juvenile courts, desertion and illegitimacy, dangerous occupations, accidents, and diseases of children of the



Statue of Liberty on Dome of Capitol, Washington, D.C.

working classes, employment, legislation affecting children in the several states and territories, and such other facts as have a bearing upon the health, efficiency, character and training of children. The chief of said Bureau shall from time to time, publish the results of these investigations."

While not enacted into law, the importance of the measure is so great that the child workers of the nation will not cease their labors until the bill is finally passed.

On April 1, 1909, what was known as the children's charter became effective in Great Britain.* As this is an administrative law, it is a far stronger measure than that embodied

*"Baby farming" is subjected to strict supervision, and no child may be kept on premises that are overcrowded, dangerous or insanitary.

Foster-parents found to be negligent, ignorant, drunken, immoral or criminal will be deprived of their charges. Insurance companies are forbidden to insure the life of a nursing child.

Any person convicted of cruelty resulting in the death of a child in which the person is financially interested may be fined 200 pounds sterling (\$1,000) with five years' penal servitude.

Severe punishment is provided for death by overlying while the parents are under the influence of drink.

Children under 7 years may not be left in a room containing an open fire insufficiently protected.

Begging or receiving alms on the street is unlawful. Juvenile smoking is suppressed. Policemen must confiscate cigarettes and cigarette papers found in the possession of persons under sixteen years of age, and tobaccoists selling such property to them are liable to a fine. Anyone keeping slot machines is

in the Childrens' Bureau Bill, which is only advisory. Yet careful investigation and advice by the federal government is preferable to the old way of ignorance and lack of responsibility for the care of dependent, destitute and delinquent children.

In the future conservation will be a word of fuller meaning and the best thought of the nation without doubt will be turned to the

liable to be fined one pound sterling (\$5.00) if a boy get cigarettes from them.

Reformatories and industrial schools are established to deal with youthful offenders, and incorrigible children may be placed under the supervision of probation officers.

No person under fourteen years may be sentenced to death.

In lieu thereof, the court shall sentence the child or young person to be detained during Parliament's pleasure.

No child may be sentenced to imprisonment or penal servitude for any offence of any default in the payment of fines, damages or costs.

Places for the detention of youthful criminals are to be opened in all the petty sessional divisions; special juvenile courts, detached from any building or room in which the ordinary sittings of the court are held, are to be provided, and every effort is to be made both before and after the trial to prevent the association of children with adult criminals.

Parents and guardians may be compelled to pay fines, costs or damages imposed upon children.

Pawnbrokers are forbidden to take any article from a person apparently under fourteen years.

Child vagrancy is abolished.

The prevailing practice of giving infants intoxicating liquor comes under heavy penalties and children are forbidden to enter saloons.

There are rigid regulations against overcrowding at children's entertainments.

Parents permitting their children to appear in school in an unclean condition may be brought before the magistrates.

conservation and development of both natural and human resources. As a part of this larger work the nation cannot neglect that other line of service which expresses itself in the development of that which is aesthetic and beautiful for it is "the country beautiful that retains the love of its citizens." Says a writer in the *Outlook*, "We are to conserve the soil, the forests, the minerals, and the waters; we can, if we will, and if we plan to that end, at the same time and with complete economy preserve and increase the beauty, healthfulness, and habitability of our country."

We have not always done so, for while as business men we have been commended for our thrift, we have also been prodigal of the gifts of nature and the beauty of landscape which was ours by inheritance. The thought that "beauty pays" a nation as well as a city, is turning the attention of the people toward making America beautiful in all its parts.

Augustus Saint Gaudens well expressed the higher artistic thought of the day when he said, "The love of beauty makes for nobility and elevation of life, character and dignity in our surroundings, as truly in the halls of law and government as in our homes."

That George Washington was actuated by high ideals is evidenced by the genius displayed in the laying out of the federal city and in erection of permanent buildings. When Congress had ordered the planning of the City of Washington, in the District of Columbia President Washington selected Major Pierre Charles L'Enfant to make the plan. Major L'Enfant was a French engineer of great promise and recognized as a man of exquisite taste and consummate skill in his profession, yet much of the success of the completed plan is due to the constant direction and minute supervision of Washington and his Secretary of State, Jefferson. All that goes to make a city a work of art was wrought into these plans, after studying all the great models of the world. "From his well-stocked library, Jefferson sent to L'Enfant plans 'on a large and accurate scale' of Paris, Amsterdam, Frankfort, Carlsruhe, Strasburg, Orleans, Turin, Milan, and other European Cities."

The plan was an extensive one intended for a magnificent seat of government, yet its development was so slow that the federal city became the laughing stock of the world,

jokingly called "The city of magnificent distances."

During the first fifty years of the Republic, the Presidents and their official families strove to maintain the beautiful in every building and monument and statue erected. Architects and sculptors of great renown, brought from all lands, entered into competition for the beautifying of the federal city. The legislative branch of the government was opposed to this custom of selecting by merit, so that during the next forty years this work fell too often into the hands of politicians who, lacking the vision, spoiled much of the original plan, erecting great buildings without regard to their relationship to others.

The revival of national interest in civic architecture and city planning following the Chicago Exposition led up to the passage of the Tarsney Bill, which gave the Secretary of the Treasury power to select the best architects by competition for future federal buildings. This law was first put in operation by Lyman J. Gage, Secretary of the Treasury, who inaugurated the new régime of federal art. At the suggestion of the American

Institute of Architects, the senate appointed a commission to study and report upon the future development of Washington City. The commission was composed of Daniel H. Burnham, Chas. F. McKim, Frederick Law Olmsted Jr., and Augustus Saint Gaudens, "men of broad experience and great artistic ability, who had proved themselves equals of the great artists of the world." Their report embodied some changes and suggestions but for the most part it was a reinstatement and development of the original plan of L'Enfant. The Commission will be satisfied if all of their recommendations are carried out within fifty years, but every change made to conform to the plan is a step toward making Washington the city beautiful. That all ugly spots will be eliminated and the city made to be a model for all other cities is the belief of the lovers of the federal city. This would involve absolute cleanliness, the abolition of the slums, a high standard of both municipal and private improvements and a splendid development of all forms of civic beauty.

The government is even more widely influencing art and architecture throughout the



In the Yosemite National Park

nation by the erection of all of its public buildings, not only in a substantial manner fitted to last through centuries, but by adopting a general classic form which has displaced the haphazard method of years gone by. Thus the position of supervising architect in the Treasury Department becomes a very important office. As an aid to this official and a guide to Congress in all matters pertaining to federal structures, President Roosevelt at the suggestion of the American Institute of Architects, appointed an unofficial ministry of fine arts to whom will be referred for advice all matters embracing architecture, selection of sites, landscape work, sculpture and painting.*

*The membership of this Council is as follows:

Architects.

Cass Gilbert	George B. Post
C. Grant La Farge	Arnold W. Brunner
Walter Cook	Robert S. Peabody
William A. Boring	Charles F. McKim
S. B. P. Trowbridge	William S. Eames
John G. Howard	James Rush Marshall
Glenn Brown	Abram Garfield
Thomas R. Kimball	Frank Miles Day
John L. Mauran	William B. Mundie
D. H. Burnham	C. Howard Walker

John H. M. Donaldson

Footnote continued on page 452.

The interest in the things beautiful has spread to the insular possessions and an effort is being made by the nation to redeem the ugly in every place under federal control. On a trip around the world, Mr. Burnham was asked to stop at Manila and make a plan for the reconstruction of that city. This he did with marked ability and all improvements are now being made in accordance with this plan. Streets are being straightened, shade-trees and tropical foliage planted and waste places made into beautiful parks. The military authorities in every island are seeking to bring up every post and garrison to the ideal set for them in the Capital City. In this way the original Burnham plan becomes the type of the entire archipelego.

But beauty is not necessarily artificial, for the best examples of beauty are shown in the preservation of natural scenery, untouched

Painters

John La Farge
F. D. Millet

E. H. Blashfield
Kenyon Cox

Sculptors

Daniel C. French
Herbert Adams

H. A. MacNeil
K. T. Bitter

Landscape Architect

Frederick Law Olmsted, Jr.

by the hands of man. Only within the last quarter of a century has the nation recognized its duty in such conservation, and by act of Congress set aside certain great tracts of land which shall forever be used as public parks and pleasure-grounds for the benefit and enjoyment of the people and as game preserves. When relieved from the fear of man, the bear and antelope become as tame as the watchdog or the animals in a private pasture. The principal parks thus set aside are, the Yellowstone, located in Wyoming, Montana and Idaho, having an area of 2,142,720 acres, and an average altitude of 8,000 feet, and noted for its wonderful scenery, geysers and hot springs; the Yosemite in California, containing 719,622 acres, embracing a valley of most wondrous beauty; the Mount Rainer in Washington, with an area of 207,360 acres, preserving for all time the grand scenery of the mountain for which the park is named. The Sequoia, 160,000 acres, and the smaller General Grant Park are located in California and are set aside not only to preserve the natural scenery, but to protect the great sequoia trees from the ruthless axe of the woodman. It is to be hoped that every one of the ten groves

of giant, centuries-old sequoias may be brought under government control and thus kept from destruction. The President of the United States under a recent law was enabled to create out of the public and unreserved lands, nine national monuments, among them being the Petrified Forest in Arizona, The Natural Bridges in Utah, and the Muir Woods in California. For an entirely different purpose, about four years ago, Congress created the Mesa Verde National Park in Colorado, with an area on 41,920 acres. The act authorizes the Secretary of the Interior to maintain such a service as is necessary for the preservation from injury or spoliation of the ruins and other works and relics of prehistoric or primitive man within the limits of the reservation, and to grant permits for the examination, excavation, and gathering of objects of antiquity by any person or persons deemed properly qualified to conduct the same, provided they are undertaken only for the benefit of some reputable museum, university, college, or other recognized scientific or educational institution, with a view to increasing the knowledge of such objects and aiding the general advancement of archaeological science.

The act also provides that all prehistoric ruins situated within five miles of the boundaries of the park, or Indian and public lands not alienated by patent from the ownership of the United States, shall be under the custodianship of the Secretary of the Interior, to be administered by the same service. The latest parks to be established by the government are; the Glacier National Park, a tract of sixty miles in northwestern Montana on the Canadian boundary line, the apex of the continent and a country full of glaciers, lakes and dense forests; and the Wheeler National Park in the Rocky Mountains in Colorado.

In every part of the land, commercialism has been threatening the magnificent natural attractions of the country, such as Niagara Falls, the highlands of the Hudson, and the Appalachian Mountains. In order to preserve this scenery for the people, the federal government will need at once to secure control of these lands and set them apart as forests, parks, and monuments. In these and in many other new ways this nation, already at work in human uplift, will have increasing opportunities for service to all the people.

CHAPTER XIII.

The Army of Peace

The struggle of the jungle did not cease when the jungle dwellers were united into tribes and the tribes, conquered by stronger peoples had become nations. The staple of history has always been war. "Exhibiting the most forceful as well as the most brutal activity of men, it has shaped most of the primary conditions of life for all communities of the human race. In some way it has determined the career of most nations, from beginning to end."

Because it has so completely dominated the thought and life of the world, it has always been an obstacle in the way of the truest progress. War has taken its heavy toll from every nation, not only of money but of lives. A careful statistician claims for eleven of the great wars, a cost of \$11,105,000,000, and of 3,081,000 lives. But what census taker will ever be able to express in figures the social cost as revealed in broken homes, diverted

Were half the power that fills the world with
terror,
Were half the wealth bestowed on camps
and courts,
Given to redeem the human mind from error,
There were no need of arsenals or forts.

Longfellow.

plans, vices developed, brutal passions aroused and industry retarded? What country will ever be able to pay in money for the disease and pain and lost character, the sure results of every campaign? If this cost could be expressed in dollars, it might be an amount which would beggar a nation.

It may be true that war for war's sake has ceased among the civilized peoples, but the armed neutrality of every nation as represented by its standing army and its ships of war almost equals the expenditure devoted to civil government. The workers of Europe are called upon yearly to give 4,000,000 of their stalwart sons for the army and the navy. These young men who might have been engaged in productive industry, and in the building of homes are drawn away from this constructive work to be trained in the fearful art of killing. To maintain these military establishments in time of peace, the annual cost is one billion and a half of dollars, obtained through the governmental revenues and the direct taxes.

In feverish haste, every nation is building its dreadnaughts costing from \$5,000,000 to

\$15,000,000. The search for denser armor, for stronger guns and more powerful projectiles is more strenuous than the search for gold. Warships for the air and torpedo boats for the deep sea will make war more terrible and more costly. Our own land is not free from these bankrupting tendencies. Read the war expense for one year of peace as shown in the supply bills of the United States:

Army.....	\$101,197,470.34
Fortifications.....	8,170,111.00
Military Academy.....	2,531,521.33
Navy.....	136,935,199.05

Think for a moment what might be accomplished if this vast amount could be diverted to the constructive side of the work of nation building.

The contention of this chapter is that the time is rapidly coming when war will cease, and we will have an organized army of peace to do the great things worth doing, digging the canals, draining the swamps, dredging the harbors and waterways, reclaiming the desert, cleansing the tropics, and bearing the white man's burden, in many lands where the people are struggling upward toward the light.

Yet a vast amount of work must be done before this ideal shall find fulfillment, and the horrors of war shall be supplanted by the glories of peace. Education, formation of public opinion, and world organization are methods by which ethical sentiments may be transformed into the dynamos of action, and discussion brought to the stage of accomplishment.

We call this process a movement, a great peace movement, and as such it is well worthy of careful study by everyone who wishes to have a part in the making of history. We of the 20th Century are not the first to realize the evils of war and pray for the coming of peace. Noble souls throughout the centuries have felt the truth of the saying of Horace Mann. "If a thousandth part of what has been expended in war and preparing its mighty engines had been devoted to the development of reason and the diffusion of Christian principles, nothing would have been known for centuries past of its terrors, its sufferings, its impoverishment, and its demoralization, but what was learned from history."

Let us review the story of the work of the

great peace-inspired souls; of the dreamers as well as the doers. Nearly seventy years ago, there began a most remarkable series of Peace Congresses led by such men as Elihu Burrett, Amasa Walker, John Bright, Richard Cobden and Victor Hugo. These Congresses were held at London in 1843; Brussels in 1848; Paris in 1849; Frankfort in 1850; London in 1851; Edinburgh in the spring of 1853, and in Glasgow in the fall of the same year.

The Civil War and the Crimean War stopped the agitation for peace and it was not until the Paris Exposition in 1878 that the subject of peace again received public attention. Beginning again in 1889, Peace Congresses have become almost an annual event, having been held in Paris, London, Rome, Berne, Chicago, Antwerp, Budapest, Hamburg, Paris, Glasgow, Monaco, Rouen, Boston and Lucerne.

Another powerful agent for peace has been the Inter-parliamentary Union, originated by Hon. Wm. Randolph Cremer, the English Carpenter and Trade Unionist, member of the British Parliament, and Secretary of the International Arbitration League. Mr. Cre-

mer in 1887 was the bearer of a memorial from England to the President and Congress of the United States in support of an arbitration treaty. Failing in this mission, in the following year he gathered in Paris a few members of the parliaments of Great Britain and France for further discussion of arbitration as a means for the preservation of the peace of the world. This resulted in the formation of an association known as the Inter-parliamentary Union, with the celebrated peace worker, Frederick Passy, as president. This Union has grown in numbers until it is the unofficial representative of all of the parliaments of the world, with a membership of over 2,000 men. The meetings are usually held in the parliament buildings of the various nations. The Honorable Richard Barthold, member of Congress from Missouri is president of the American group, and author of the resolution asking the President of the United States to call a conference of nations. After years of discussion of peace topics, the Union has adopted a platform with the following planks: a regular international parliament, a general arbitration treaty, the limitation

of national armaments, the immunity of all unoffending private property at sea in time of war, report by an impartial commission upon contested issues between nations not settled by diplomacy or arbitration, before any hostilities, and provision by governments themselves for the promotion of the cause of peace and mutual understanding between nations.

Among the early leaders of peace should be mentioned the Baroness Bertha Von Suttner, who by her book "Lay Down Your Arms" inspired many others to labor for the salvation of the world from the horrors of war. She founded the Austrian Peace Society and ever labored in her own and other lands for the cause so near her heart. Through the reading of "Lay Down Your Arms," Mr. Alfred Nobel, the manufacturer of explosives, gave his entire fortune to the cause of peace. Out of the income from this great gift, \$40,000 each year is granted to the person who has done the greatest work during the past twelve months in forwarding this cause. The first year the prize went to the venerable Frederick Passy, the second to Mr. Cremer and the third to the Baroness Von Suttner, whom Frederick

Passy has called the "General-in-chief of the World's Army of Peace." The prize then came to President Roosevelt, for his services in bringing about the Treaty of Peace at Portsmouth, N. H., between Japan and Russia. President Roosevelt immediately gave the amount of the prize to the cause of bringing about industrial peace.

It is to the Czar of Russia that the credit goes for the calling of the First Peace Conference at the Hague, although suggested to him by the work of the Parliamentary Union. The following communication was handed by the Russian Minister of Foreign Affairs to all the foreign representatives in St. Petersburg:

"The maintenance of general peace and the possible reduction of the excessive armaments which weigh upon all nations present themselves in existing conditions to the whole world as an ideal toward which the endeavors of all governments should be directed.

"The humanitarian and magnanimous ideas of his Majesty the Emperor, my august master, have been won over to this view in the conviction that this lofty aim is in conformity with the most essential interests and legitimate

views of all the powers; and the imperial government thinks the present moment would be very favorable to seeking the means.

"International discussion is the most effectual means of insuring all peoples' benefit—a real, durable peace, above all, putting an end to the progressive development of the present armaments.

"In the course of the last twenty years the longing for general appeasement has grown especially pronounced in the consciences of civilized nations; and the preservation of peace has been put forward as an object of international policy. It is in its name that great states have concluded between themselves powerful alliances.

• • • • •
"Nevertheless, all these efforts have not yet been able to bring about the beneficent result desired—pacification.

"The financial charges following the upward march strike at the very root of public prosperity. The intellectual and physical strength of the nation's labor and capital are mostly diverted from their natural application and are unproductively consumed.

"Hundreds of millions are devoted to acquiring terrible engines of destruction, which, though today regarded as the last word of science, are destined tomorrow to lose all their value in consequence of some fresh discovery in the same fields.

"National culture, economic progress, and the production of wealth are either paralyzed or checked in development. Moreover, in proportion as the armaments of the powers increase, they less and less fulfill the objects the governments have set before themselves.

"The economic crisis, due in great part to the system of armaments *à outrance*, and the continual danger which lies in this massing of war material, are transforming the armed peace of our days into a crushing burden which the people have more and more difficulty in bearing.

"It appears evident that if this state of things were to be prolonged it would inevitably lead to the very cataclysm it is desired to avert, and the horrors whereof make every thinking being shudder in advance.

"To put an end to these incessant armaments and to seek the means of warding off

the calamities which are threatening the whole world—such is the supreme duty today imposed upon all states.

“Filled with this idea, his Majesty has been pleased to command me to propose to all the governments whose representatives are credited to the Imperial Court, the assembling of a conference which shall occupy itself with this grave problem.

“This conference will be, by the help of God, a happy presage for the century which is about to open. It would converge into one powerful focus the efforts of all states sincerely seeking to make the great conception of universal peace triumph over the elements of trouble and discord, and it would, at the same time cement their agreement by a corporate consecration of the principles of equity and right whereon rest the security of states and the welfare of peoples.”

This conference composed of one hundred delegates representing twenty-six powers, assembled in The Hague, May 18, 1899, continuing till July 29. The United States was represented by Honorable Andrew Dickson White, Honorable Seth Low, Hon. Stanford

Newell, Hon. Frederick Wm. Holds, Capt. Alfred T. Mahan and General Wm. Crozier. Other countries represented were, Germany, Austria-Hungary, Belgium, China, Denmark, Spain, Mexico, France, Great Britain, Greece, Italy, Japan, Luxemburg, Montenegro, the Netherlands, Persia, Portugal, Roumania, Russia, Servia, Siam, Sweden and Norway, Switzerland, Turkey and Bulgaria.

While the net results of this conference were not great in regard to the immediate disarmament of the nations, the creation of the permanent Court of Arbitration by this conference paved the way for the coming of the future Parliament of Man.

Our government has stood for the establishment of such a court for many years. In 1872, Mr. Sumner introduced in the Senate a resolution proposing a permanent court to be clothed with such authority as to make it a complete substitute for war.

In 1889 the United States government called a conference of representatives from the states of North and South America to discuss arbitration, and the delegates to the Hague Peace Conference received instructions

from Secretary Hay to propose a plan for such an international tribunal. This Hague Court is described by a writer as resembling somewhat the supreme court of the state of New York, the members of which never sit all together, but singly, or in groups, as the occasion may demand. All the governments which originally signed The Hague Convention, and all those who shall adhere to it, are entitled to appoint four members of the permanent court. The four American members of the permanent court were Chief Justice Fuller, Hon. John W. Griggs, Hon. George Gray, and Hon. Oscar S. Straus. Twenty-two governments appointed representatives, though in some cases less than four, making in all a permanent bench of seventy-two judges, from whom are chosen one or more arbitrators who sit as a court in each particular case.

The jurisdiction of the tribunal, as fixed by The Hague Convention, is confined to legal questions and especially to those involving treaties. But in the convention is a recommendation to the powers having international differences involving neither honor nor vital interests, and arising from a difference of

opinion on points of fact, that they institute an International Commission of Inquiry to facilitate a solution of these differences.

The United States government was the first to make use of this tribunal at The Hague, for settlement the Pious Fund Claims, between this nation and Mexico, the award being in favor of the United States. Other controversies that have been settled by this court of Arbitration and thus saving possible war were the Japanese House Tax case between Japan on the one side and Great Britain, France and Germany on the other; the Venezuelan Preferential Payment case, between the three powers which blockaded the ports of Venezuela and the seven pacific powers having claims against the Venezuelan government; the Muscat controversy between Great Britain and France over their respective treaty rights in that country, and the trouble between Great Britain and Russia caused by the Russian Black Sea fleet firing on British fishermen. It is hoped that international cases in increasing numbers may be referred to this court. One result of the creation and use of this tribunal has been the signing of arbitration



The design for the Hague Peace Palace which received the First Prize
By L. M. Coronnier, of Lille

treaties between nearly all of the leading nations.*

In order properly to house this Hague Court, Mr. Andrew Carnegie, who has always been a strong advocate for peace, gave the Dutch government in trust \$1,500,000 to build at the Hague a peace palace. Holland accepted the gift and bought sixteen acres near the heart of the city on which the palace was to be built, donating this site to the Carnegie Fund. After competition by two hundred and seventeen architects from almost every country of the world, the award for the best plan was made to L. M. Cordonnier of Lille, France, who received the prize of \$4,800. At the laying of the corner stone, the president of the

*FROM ADDRESS BY SECRETARY OF STATE KNOX
TO VISITING JAPANESE COMMERCIAL COMMISSIONERS AT WASHINGTON IN OCTOBER, 1909.

But the great modern movement of accord and good understanding between nations are, after all, the lofty achievements and the crown of all international relations.

The controlling principle of these movements is peaceful and beneficial intercourse and the peaceful settlement by arbitration of differences and controversies—extending that principle by friendly diplomacy as rapidly as possible to embrace an increasing number and variety of disputes, and ultimately, by voluntary international compacts, making peaceful settlements of all differences compulsory, or practically so.

day concluded his address with these words:

"This is to be a palace of international justice founded as an outcome of the need of every civilized community to institute the rule of right for the rule of might. In this palace no one will be stronger or no one weaker than the other, and no other blade except the sword of justice will be placed in the scale." That this peace palace may become the capital of the world, is the hope of many, for they think they see in forming "The United States of the World," and they are looking forward to the time of which Tennyson spoke in Locksley Hall when

"The war-drum throb'd no longer, and the
battle-flags were furl'd
In the parliament of man, the federation of the
world."

When the First Hague Conference adjourned in 1899, it was expected that the Czar would call another world Conference in a very short time, but the Japanese war made this impossible. The Inter-Parliamentary Union then urged that President Roosevelt take the initiative and he responded by sounding the

representatives of the various nations on the matter, receiving favorable answers from a number. Russia begged for delay until the close of her war, and not only was this request granted, but President Roosevelt yielded to the Czar the honor of calling the Second Hague Conference. The response was hearty and in June, 1907, the representatives of forty-five independent powers met at the Hague and for four months continued to discuss without animosity some of the most delicate international questions. Although this conference did not declare for entire disarmament of the nations as many hoped it would do, enough was accomplished to demonstrate that a universal congress of this character is possible and that certain great principles of constructive action are now beyond dispute. A writer in the *Review of Reviews* specified the following propositions as established by this Conference, viz.: "that peace is the normal and war the abnormal condition of civilized nations; that the relations of sovereign states are properly based on principles of justice, and not upon force; that really sovereign states should have equal rights before the bar

of international justice, independently of their size or military strength; that disputes between governments should be settled, as far as possible, by judicial methods, and not by war; and that war, if inevitable, is an evil whose disastrous consequences — especially as regards neutrals, non-combatants, the sick and the wounded—should by general agreement be reduced to a minimum.”

This Conference recommended the creation in addition to the tribunal of justice, of a Court of Arbitral Justice. The distinction between the two bodies was stated by Secretary of State Root in his instructions to the delegation to urge the measure at the Hague. He said, “It has been a very general practice for arbitrators to act, not as judges deciding questions of fact and law upon the record before them under a sense of judicial responsibility, but as negotiators effecting settlements of the questions brought before them in accordance with the traditions and usages and subject to all the considerations and influences, which affect diplomatic agents. If there could be a tribunal which would pass upon questions between nations with the same

impartial and impersonal judgment that the Supreme Court of the United States gives to questions arising between citizens of the different states or between foreign citizens and the citizens of the United States, there can be no doubt that nations would be much more ready to submit their controversies to its decision than they are now to take the chances of arbitration."

The United States has taken the first step looking toward the establishment of this Court by the appointment of a special counsel who will hasten the movement. The third conference, it is almost universally believed, will agree upon this subject and will take a forward stand on making arbitration obligatory, on demanding at least gradual disarmament and will it is hoped call for a world organization with some form of world executive backed by a world Congress or Parliament, to meet in the Palace of Peace. That this is no mere dream for the future is the belief of the thousands of peace lovers assembled in national peace and arbitration societies and of the increasing number annually meeting at the Lake Mohonk Conference, and in the various international peace gatherings.

The year 1915 will go down in history as a memorable date, for in that year will meet this Third Hague Conference and the Panama Canal will be finished, changing the course of commerce of the world and forwarding the cause of peace through bringing all nations into a closer fellowship.

Although it has a war record that stains the pages of history with blood, still the United States is a peace-making nation. "Two generations ago it was the American delegates in European peace congresses who, when nobody else then did it, talked persistently of a world court; and the plan was known in popular European parlance as 'the American plan'. Baron D'Estournelles has said often and strongly that it was because America took the Hague Tribunal seriously and first put it to use, that it came so quickly to honor and power. Other governments might have mediated between Russia and Japan, but the American government did it, and the most terrible of modern wars, there on the plains of Asia, was brought to an end at Kittery Navy Yards."

Through the good offices of this nation three

Pan-American Conferences have been held, one in Washington, the second in Mexico, the third in Rio Janeiro and the fourth is to be held in Buenos Aires. This conference at Rio Janeiro was especially helpful because of the presence of Secretary of State Root who swayed the people through his oratory and brought together contending nations through his diplomacy. A writer describing the conference, says: "Secretary Root's trip thereafter through the Continent became a triumph, and everywhere he left behind him a new understanding, a new national friend and new hopes. Already the result of this is shown in increased commercial intercourse, in plans for education and mutual development along harmonious lines. Treaties, compacts, and agreements have followed or will follow that visit for years to come. And the Bureau of South-American Republics today is a living, practical, valuable establishment for the common weal of sixteen western countries."

Knowing of the wars between the central American states, Secretary Root devised a plan and persuaded the states to inaugurate at Cartago a central American court of

justice. "In other words, the Secretary of State had practically given to the countries a system of international law and procedure by which wars became unlikely and revolutions unprofitable. The court has been tested and its mandates obeyed."

There is no greater guarantee of Pan-American peace than that shown in the erection of the new building of the Bureau of American Republics, not far from the White House in Washington. This will be "the first international temple of peace, friendship and commerce; the tangible evidence of the desire of the twenty-one American Republics that war shall be no more in the Western world and that material prosperity promoted by international trade shall take its place." Mr. Andrew Carnegie has given \$750,000 for the building fund and each of the republics has added an appropriation. This temple is to be made the centre of a continuous campaign of education, where one country may obtain accurate and recent information of any other. A library on all subjects American is to be secured, and by every possible means the American governments are to be brought

closer together with intimate acquaintance-ship. This building will contain the "Hall of American Ambassadors" which will provide a room for international conventions, receptions to distinguished foreigners, and for diplomatic and social events. Truly may it be said that "peace is the sister of freedom, the guardian of democracy, the handmaid of progress."

This century may yet witness the closing of the gates of the Temple of Janus to open no more throughout the ages.

While the organized societies of the world are doing their work for peace, much is being done in other ways for constructive peace. We recall the remark of Dr. Hale when he said that the government which has a Secretary of War and not a Secretary of Peace will not be considered fit for civilized society. Perhaps it was this thought which led up to the introduction into the Massachusetts legislature of a resolution urging Congress to establish at Washington an educational institution for the study of international law, its purpose to be, "increasing knowledge of international relations, and to promote international comity to the end that friendship with

all nations may be furthered, in order that the vast sums of money now wastefully used in the maintenance of a great military establishment may largely be saved for the well-being of the people."

Quarrels between neighbors are passing; feuds are considered barbaric; duels between gentlemen are nearly ended; fighting between nations will soon be considered as disgraceful as fighting between individual men. Some of the facts which will back up this assurance of the coming of permanent peace readily occur to the mind of any thoughtful student. The airship may mean an end of the armies in ten years, for its use will make the great engines of war as useless as the battering ram. Furthermore, Prof. Graham Taylor points out that there is an industrial basis for international peace. "War becomes more and more impossible, peace more and more necessary, as nation becomes more and more dependent upon nation not only for its profits but for its very living."

Harold Bolce, in his "New Internationalism," says, "As international trade grows and credit expands, as the commitments of finan-

ciers in different lands multiply, and as industrial connections ramify across the oceans, the resulting panic when war disturbs one nation will be so disastrous to all nations that financiers, who control statesmen, will forbid the declaration of war."

The world is growing smaller—the telegraph and cable make of us all next door neighbors. Every new steamship line makes it easier to know the Antipodes. The missionary and the globetrotter are ever ready to describe the characteristics of unknown peoples while visiting commissions, exchange of teachers, and students studying in foreign schools all make for a larger fellowship and a world-wide brotherhood. "If nations become interested in one another, war must soon become an anachronism," says a recent writer, "for the triumph of rival dynasties, or even the successes of rival churches do not interest the common people today as much as do the great social questions of a living wage, a good school, a home-site and an equality of opportunity. To them the wreckage of war only retards the movement which is dearer to them than victories of battle."

The knowledge of the horrors of war has aroused a strong aversion to militarism in all lands, and the demand to arbitrate rather than to fight is insistent, especially on the part of the common people.

Universal brotherhood is illustrated in the great international gatherings so common in these later years. The International Institute of Agriculture, inaugurated by the king of Italy at the suggestion of Mr. David Lubin of California; the International Postal Union which has accomplished much for the inter-communication of the peoples of the world; the Society of International law, copying and making uniform the laws, world-wide in application—these, and many other similar organizations are surely hastening the coming of the federation of the world.

Not many years ago Chili and Argentina were about to be embroiled in war. There were disputes and bitter feelings and military preparations for war on the part of both nations. The peace-lovers plead for arbitration and their request was granted. The settlement of this dispute was more far-reaching than was dreamed of by the arbitrators for

it not alone brought peace to contending nations but it enthroned a new ideal of peace, and brotherhood—they who were prepared for war, were now ready for peace. Melting the cannon, they cast the bronze into a mighty statue of the Christ and placed it on the highest summit of the Andes. From that lofty height, the Prince of Peace will through the centuries send forth his message of “peace on earth, good will toward men.”

Have not our friends in the southern continent given us an example worthy to be followed? We have erected statues to the followers of Mars in every plaza in every town; but as yet few have been erected to the heroes of peace. If ideals have their value, then let there be statues and stories of the “work-a-day” heroes. Carnegie’s hero fund is of greater value to the nation than are the warships built at the cost of millions of dollars. The man who carried the message to Garcia, and Eben Brewer, who sent the soldiers’ letters home from Cuba, are rightly honored. Because of this “Hero Fund,” many heroes of everyday life receive the honor worthy of their deeds of valor.

A new education of children in the ideals of peace has many advocates. School histories are largely the record of the details of wars, giving an impression that war is the most glorious form of human activity. Mr. Brown in his report as Commissioner of Education, says: "Governments, in striving to maintain an honorable peace, require the reinforcement of popular sentiment, and it is of the utmost importance that such public sentiment should steadily demand a peace which makes for righteousness, and no other peace than that which will make for righteousness. A public sentiment calling for such peace will be stable only when it rests upon an appreciative understanding of other nations. In this there is a great work for education the world over, that it may help the nations to understand one another. Whatever the schools may do to this great end will count for real education. Can any form of learning, in fact, be more liberalizing, more expanding, more tonic, than the insight gained through knowledge of other peoples, our contemporaries, who with us are the makers of modern history?

"Already a considerable movement is under



A Fourth of July fiesta at Iwahig, 1907, each division with float showing work

way looking to the annual commemoration in the schools of the United States of the opening of the first Hague Conference, which occurred on the 18th day of May, 1899. Such a celebration seems eminently desirable, by way of laying due emphasis in the schools upon the vital relations of modern peoples one to another."

Resolutions passed at the International Congress at Liege, Belgium, in 1905, in answer to the question, "What can the schools contribute to the spread of the peace idea?" contain these words:

"Instruction in history should be of a kind to show the great law of solidarity which unites all men, all the intellectual and spiritual workers of the past. Through geographical instruction it should be shown how the living generation works in the same way, how the lines of trade and communication are established and multiplied, how the exchange of the products of all lands secures a common life on a broader and more comfortable basis."

Although we have an army of war, yet for a great part of the time this mighty organization is doing the work of an army of peace.

Its work of reconstruction, of education, of rehabilitation, of sanitation in the Philippines,* in Cuba, Porto Rico and Guam, are but examples of the great work which might be done in every land, if the organized destructive forces were made constructive, humanizing and civilizing. This is the contention of this chapter, that as war shall cease, the organized

* (FROM REPORT OF SECRETARY OF WAR, TAFT, 1908.)

"Mr. Burnham, the well-known landscape architect of Chicago, some years ago, without compensation, visited the Philippines and mapped out a plan for the improvement of the city, and laid out a plan of construction for Baguio in Benguet as the summer capital and health resort. To both of these plans, all improvements which have been attempted in the city have conformed, and if the present efficient city government continues, there is every reason to believe that Manila will become a most attractive city. A contract has been made for the leasing of ground immediately upon the Luneta and facing the bay, to a firm of capitalists for the construction of a hotel to cost 500,000 pesos. It is doubtful, however, whether this capital can be raised at the present time, and if it falls through it is proposed, and I think with wisdom proposed, that the government shall erect a hotel as a public investment for the development of the city and the islands, and lease it to the best bidder.

There is no city in the world better governed than Manila. The streets are well cleaned, are well policed, there is a most excellent fire department. The parks are being enlarged and improved, the street car system is as good as anywhere, and with the improvements in the water supply, the sewerage system and esteros or canals, which are now under foot and part of which are nearly accomplished, the face which the Filipinos turn toward the world in the city of Manila will be a most pleasing one."

forces will still continue, but will do the great things needing to be done that make for better living and for the establishment of righteousness and justice in the whole world.

No experiment has ever had greater success than that of the Iwahig Penal Colony in the Philippines. This was founded after a careful study of the George Junior Republic. The right man was found to conduct it, and prisoners who gave hope of reformation were taken from Bilibid Prison to an island, at that time only a mangrove swamp. Here freed from the restriction of prison life, these Filipinos were given a chance to become men. The following description* shows what can be done for human uplift when a nation organizes to do good even to the weakest:

"A number of colonists have by their work and good conduct earned the reward of a small farm with a small house and the privilege of having their families with them. A pre-

*The number of prisoners employed in the different divisions of the colony on June 30, 1908, was as follows:

Farming, 101; Construction, 61; Forestry, 68; Roads, 30; Transportation, 29; Serving, 49; Executive, 16; Health, 12; Out Stations, 54; Sick in hospital, 21; Police, 20; In Puerto Princess, 5. Total strength of Colony, 466.

scribed allowance of food, clothing, and money enables them to live until their farms have become sufficiently productive to support themselves and their families. As the farms increase in productiveness the government support is gradually withdrawn. The colony is divided up into hunters, farmers, lumbermen, road-builders, cattle-raisers, hog-raisers. There is a police force, but not a firearm on the reservation. The word 'prisoner' or 'convict' is never heard or used, and to an observer it would appear that these men were cultivating a big hacienda. The faculties necessary for handling these men are honesty, sincerity, patience, firmness, fearlessness, and a fine sense of justice—about the same qualities that are needed for the handling of prisoners of any nationality. The essential idea of the colony is that of enforced industry combined with the discipline of decreased restraint and increased self-dependence. The result is that prisoners cease to be a cost to the government and become self-supporting. Among the many incentives, in addition to the large degree of personal liberty allowed, is that of earning a conditional parole, with the choice of return-

ing to their homes or remaining in Iwahig and becoming farmers of colonies. If a paroled man remains on the reservation, he will receive, in addition to his accumulated earnings, a farm and house, seeds, advice, and all help possible, in return for which he must obey the laws of the colony in the same manner as any citizen would obey the laws of a municipality."

While the army has been successfully working out experiments in the tropics the work of the Engineers' department gives the best illustration of what may be accomplished by an army of peace. The duties devolving upon the officers of the corps of engineers have been increasing year by year, and are now greater than ever before in its history. These duties at present include the construction of fortifications, superintendence and execution of works of river and harbor improvements, and the construction and repair of lighthouses, both in the United States and in the island possessions; the water supply, municipal engineering, care of public buildings and grounds, and a share in the government of the capital city of the United States; the improve-

ment of the Yellowstone National Park; the survey of the northern and northwestern lakes; the mining and debris commission in the State of California; the chairmanship and majority membership of the Panama Canal Commission and work under this commission, all of which involve the expenditure of many millions annually.

After several trials, the government found it necessary to give the direction of the building of the Panama Canal into the hands of Col. Geo. W. Goethals, an army engineer, who could not resign or ask leave to accept a position with larger pay. With the discipline of the army, the work of building the Panama Canal is being hastened to a completion in 1915, while with the zeal of the surgeons in the Japanese War, Col. Gorgas is doing a work in prophylaxis never witnessed in the tropics outside of this zone.

In an early history descriptive of the work of the army engineers, we find the following facts concerning the usefulness of these soldiers of peace.

In the earliest days of West Point, people hesitated at expenditures for purely military



Los Angeles makes its own cement for the great aqueduct

purposes, and proposed to employ these officers in time of peace in various useful undertakings. President Jefferson who was "no great lover of military affairs, but a warm friend of science," signed the Act, establishing the military academy, contemplated an institution which would supply the country with engineers for civil as well as military purposes, an institution which would serve as a model for training in the practical sciences.

Because West Point antedated all technical schools by twenty-three years, naturally this school furnished teachers for other schools, and a type for their establishment. The graduates became the great explorers of the country, mapping and charting the rivers. The officers of the War Department from the earliest years of this last century, from the days of Pike and Long, and Lewis and Clarke, and Bonneville, have borne the hardships and exposures of the preliminary examinations and surveys, when the region was an unknown wilderness, and have gone on improving their surveys from time to time by more accurate methods as the improvement in instruments or their transportation has increased.

The railroad was born in England in 1825. A fever for railroads immediately attacked this country, but at that time there were no competent men with experience sufficient to locate and construct them. There were a few graduate military engineers, whom the government with liberal policy lent to the railroad promoters for this purpose. The Baltimore and Ohio, and scores of other roads were thus built.

The army engineers now assigned to the rivers and harbors are doing a work of far-reaching importance to the nation. The need for their services will increase as the government's plan for waterways reaches the active stage. The work of U. S. Engineer, Amos A. Fries, in developing the great harbor at Los Angeles is illustrative of the far-reaching work of this part of the army. In addition to his noteworthy success in the building of this breakwater, the aid which he rendered the city of Los Angeles in saving the harbor for the people in their contest with the great corporations will never be forgotten by those who are interested in the success of all measures for the common good.

War may cease, but will we not always need trained engineers with an army behind them to dig the waterways and harbors, drain the swamps, build the railroads and reclaim the arid lands? An organized army, working six hours a day, with special drill would not only do the work, but would be in the best of training if defense was necessary. When the Panama Canal is finished, the plant and organization ought to be put to use in digging and dredging the great canals and deep waterways, giving interior states harbors for ocean-going ships.

Under a magazine picture showing the landscape about Mukden furrowed by the plowshares of war, occur these words: "The amount of work devoted to the altering of nature for the purposes of war would build an irrigation system that would make a vast arid region fertile, construct a line of railroads or create a great commercial harbor."

This nation has an army prepared for war, but enough has been said to show that it is slowly being transformed into an army of peace, and that new ideals of patriotism and service to one's country are taking the place

of the older thought that the highest service was to die for one's nation, while fighting at the front where the battle raged the fiercest.

It may be ours to have the vision of Ossian, when he sang of that time to come, when "The battle ceased along the plains, for the bards had sung the songs of peace."

CHAPTER XIV

More Democracy

Democracy is not a new idea born of the twentieth century. The rule of the people existed away back in the days of ancient Greece, in which land the word democracy itself was coined. "Demos" was then a term of greater import than king or lord; but to the Grecians "the people" did not mean all the people, for the slaves were many, the captives of many wars, oftentimes educated and refined, yet without voice or vote.

The end of the struggle of the centuries has been not only that the people might rule in place of king or aristocrat, but that all the people,—freed from bondage, educated and lifted out of dire poverty, might be fitted for the noble duties of citizenship. If democracy means the rule of the people, the rule of all the people, then the weaker must be aided and educated by the stronger, until every vote shall be an honest and intelligent vote.

Such a hope may seem Utopian in an age of greed and graft, yet it has never died out in the human heart but has rather grown stronger as the centuries have slipped by with their ever-increasing light and liberty.

Perhaps it is only natural that the strong should seek to rule the weak, and history records it as a fact in every land. Sometimes it is the rule of royalty, sometimes the rule of bureaucrats, sometimes that of industrial lords, but whatever form it assumes, it always results in the exploitation of the weak by those who have grown strong at their expense. Read the story of the early struggles for life and liberty, and you will find that the objects sought for are in substance the same as the demands of today, although the names may be changed.

The Republics of Greece became the teachers of the world in democratic ideas, although they could not rise entirely above the belief that a poor man was unfitted for citizenship. Among the German tribes, all freeman were citizens in a democratic society, but gradually as feudalism grew in power, the majority of the freeborn people became subject to the nobles,

and were scarcely to be distinguished from the serfs of the land. The nobility branded these masses as "the common people," "the *canaille*," who were once known as "the people," free citizens of a free republic. Those who ruled were either warriors or possessors of land granted for valor in war. Dark ages followed one another in which the cause of rule of the people was eclipsed, but the rise of the city and the beginnings of industrialism brought a change. Leaders in commerce demanded their rights and received them; then the trades or guilds asserted their claims for recognition, and after many bloody contests were victorious. The agriculturalists were less able to gain recognition, and were held in serfdom long years after their brothers in the cities were made freemen. Although the democratic principle was gaining recognition through a larger number being included in the ruling body, yet the great mass outside were still looked down upon as the common herd. The French Revolution wrought a change throughout Europe, and "Liberty, fraternity and equality" became the rallying cry in every land, and the people began to claim rights as against the aristocracy.

The settlement of America seemed to furnish the place for the final working out of the ideals of democracy; here was to be witnessed the rise of the common people; the uplift of the average of humanity was now to be made possible; for aristocracy, that foe to the common good, was to be left behind, and the desire for civil liberty was to be strengthened by the passion for religious liberty.

The Pilgrim Fathers sought to create a state of society where equality in all things might become permanent. Later the Declaration of Independence embodied the best thought of the world in the statement of the belief in human equality, and here and now democracy was seen to have a free field to work out the salvation of the people, both from the evils of monarchy and aristocracy. The Fathers planned and labored well, and civil and religious liberty seemed assured in America—the land of the free. Political democracy, although not absolute, but only representative might here have become a greater success had not the growth of modern industrialism, at first with its intense individualism, and then with its mighty combinations, wrought havoc

with the earlier ideals of liberty and equality.

A new feudalism of capital was established, and the lords of the money power looked upon the masses as did the feudal lords of the middle ages, and called them "the people." The Fathers were not willing to trust the people with the rights of a true democracy, as was done in lands where all the people ruled directly, as in Switzerland, or ancient Athens, and so they established the device of representative democracy, according to which the representatives spoke and acted for the people who chose them. Because of this method, the lords of misrule have been able, by the use of gold, too often to win the support of those whom the people trusted. Within the last quarter century, there has been formed within this nation an aristocracy of wealth even more baneful than the old world aristocracy of birth. Power has become concentrated in the hands of the few, and they have used this power of the dollar to nullify laws, defeat justice, defy the government, and corrupt the ballot-box. What matters it if there is less of wretched poverty in this favored land than in other lands, if political and industrial democ-

racy are in danger of being overthrown! What profits it if in the place of the rule of the people, privileged wealth is to sit in the seat of government, and through protected interests, under the lead of corrupt bosses, and upheld by a venal press, make the laws for a nation in bondage! History is at last repeating itself, and the people deprived of their rights are again demanding that their name shall be written large; and that power, once wrested from them shall be restored to their hands.

Notwithstanding the existence of social immorality, dishonesty, graft, and exploitations of various kinds, because of the recuperative power of democracy, the people once awakened are sure to win, for "though they may blunder on the way, they are ultimately right." The spoiling of the weak by the strong cannot long continue in a democratic nation, when the people speak. With De Tocqueville, we hold that "the cure of the evils of democracy is more democracy." Trust the people, give them greater power to rule. If a representative government is necessary, then make the representatives more

intimately responsible to their constituents, and closer to the electors, that the power of sympathetic public opinion may influence their every action.

The past decade has witnessed an agitation as active in its propaganda against the evils of modern industrialism and its allied misrule as was that against monarchy and its evils before the French Revolution. And just as sure as that agitation resulted in the overthrow of the old, so will the social unrest of this day result in a revolution, peaceful yet mighty, which will lead to the overthrow of injustice, and the establishment of the rights of the people. There is on every hand a revival of public spirit on the part of those who had lost hope and who had neglected the ballot-box; and because the people are aroused, success is assured.

For the past ten years a moral wave has been sweeping over the land. The people are growing in a sense of spiritual values, and the purely material conception of life is losing its hold. Men everywhere are being moved by a "religion of democratic aspiration." This religion of patriotism is calling

its followers to live for their country, to work not in the spirit of blind revenge against the over-lords of society, but through the education of the consciences of the people, seeking, not for spasmodic reform, but for the re-establishment of our governmental system on strong, permanent, democratic foundations. First agitate, then educate, then inspire, is a method which will always bring good results. Along with the moral awakening of the people comes the turning of the light on existing conditions. Perhaps no stronger arraignment of the evils of the present political situation has ever been given, than that contained in an analysis of the new tariff law, in the *Outlook* for August 14th, 1909, part of which is as follows:

“Special interests control both the House and the Senate. Some interests have a greater control in one body, some in the other. Only a comparatively small body of statesman in either branch of Congress are controlled by the consideration of what is demanded by the general interest of the nation. This is natural, perhaps unavoidable, since the repre-

sentative is elected to represent his district and the senator his state. Neither is elected to represent the nation, and, with some shining exceptions, neither representatives nor senators know much about national desires and national opinion. The President is the only person concerned in this legislation who has been elected by the nation, and to whom the interests of all sections and states send their complaints and requests. In Congress the representatives are elected by the people, and are therefore more responsive to the popular will; the senators, in some cases practically elected by the special interests, are more responsive to those interests than to public opinion."

Such conditions demand a change. The optimist says that relief is near at hand, and who could be else than an optimist, as he stands in the presence of an aroused citizenship? Here are some of the methods by which special privileges are to be overthrown and equal rights for all established in government and industry. The direct primary; direct legislation through the initiative and referen-

dum; the recall; choosing the senators by the people; non-partisan city government; new city charters—these are among the democratic devices which are putting the power to rule back again in the hands of the people. And surely this is the way to create “the right environment for freedom and democracy.”

Direct legislation is the latest American approach to the communal voting of the Greek republics, the Swiss cantons, and the New England town meeting. The immense stretch of country, and the density of population, will probably make absolute democracy an impossibility in this land, yet the device of direct legislation will put the power of control where it rightly belongs, as it is expressed in the definition, “The initiative enables the people to enact, by direct popular vote, desirable measures, ignored, pigeonholed, or defeated by their representatives. The referendum is the power of veto, by direct popular vote, of acts of the representatives.”

The control thus put into the hands of the people in questions of legislation is duplicated in the recall, in the control over the men elected

to office. The founders of the nation introduced the recall in the articles of confederation.* By means of the recall, bad men or incompetent can be replaced by efficient men who truly represent the people. By means of all of these measures, "It is proposed to shift from the representatives the excess of power which is engulfing them to the body of voters who have not enough power to enable them to retain their self-respect, to say nothing of securing life, liberty and happiness. This may well prove to be the salvation of representative government and hence of popular government."

That the fathers of this nation foresaw the possible need for such legislation is illustrated by the following quotation from the Bill of Rights in the Constitution of Massachusetts.

"Article V. All power residing originally in the people, and being derived from them, the

*ARTICLES OF CONFEDERATION.

Article V. "For the more convenient management of the general interests of the United States, delegates shall be annually appointed in such manner as the legislature of each state shall direct, to meet in Congress on the first Monday in November in every year, with a power reserved to each state to recall its delegates, or any of them, at any time, for the remainder of the year."

several magistrates and officers of government, vested with authority, whether legislative, executive, or judicial, are their substitutes and agents, and are at all times accountable to them.

“Art. VI. Government is instituted for the common good; for the protection, safety, prosperity and happiness of the people; and not for the profit, honor, or private interest of any one man, family, or class of men: therefore the people have an incontestable, unalienable, and indefeasible right to institute government; and to reform, alter, or totally change the same, when their protection, safety, prosperity, and happiness require it.

“Art. VII. In order to prevent those who are vested with authority from becoming oppressors, the people have a right, at such periods and in such manner as they shall establish by their form of government, to cause their public officers to return to private life; and to fill up vacant places by certain and regular elections and appointments.”

As a way out from some of the intolerable evils of our present system, two further suggestions have been made; namely, a heavily

graded progressive inheritance tax, bearing heaviest on absentees, is the recommendation of Theodore Roosevelt and one which many states have adopted; also President Taft's proposed amendment to the Federal Constitution on which the states are asked to vote, reading as follows: "The Congress shall have power to lay and collect direct taxes on incomes without apportionment among the several states according to population."

Great Britain is moving along similar lines toward a greater democracy. British inheritance taxes, drawn from a population of 44,000,000 yield \$90,000,000 to \$95,000,000 annually, out of a total internal revenue of \$470,000,000 to \$480,000,000, thus lifting some of the burden of taxation from the common people. A revolutionary change has come over the spirit of the British politics, according to the Hon. J. Kerr Hardie, M.P., who says, "Not only is *laissez faire* dead and forgotten, but out of its ashes has arisen an entirely new creation. The old theory that the state was an unclean thing to be kept as far away as possible from the lives of the people has given place to a new concept in which the aid of the

state is being invoked for purposes which would have made the blood of the men run cold who were at the helm fifty years ago. Four years ago whilst it was known that there were tens of thousands of destitute hungry children attending school, nearly a million old persons without any means of support, and whilst also unemployment from time to time played sad havoc with the comfort of great multitudes of working people and reduced them to a state of actual hunger, there was no state machinery for dealing with these. Now, however, educational authorities may provide out of public funds food for school children; persons of both sexes over seventy years of age receive an old age pension provided from the national exchequer; and the state recognizes its liability, financial and other, to make provision for the people out of work. The House of Commons has also carried through all its stages a bill for regulating the hours of labor in mines to eight per day, and has also carried a workmen's compensation law which includes every class of worker, even casual laborers and domestic servants." More recent legislation points to the acceptance of far

more revolutionary measures in the interests of the common people, as over against that of the lords and their vested rights.

"It is evident in every land that for the future, democracy is not merely to be a scheme of governmental administration, but an ethical system applying to all departments of life. It involves a larger degree of public service, designed to meet new and pressing common needs. It holds to the principle of equal opportunity to all for the proper development of the physical and spiritual powers. It is moving toward a more highly organized and more productive type of industry.

Writers and speakers there are without number who not only believe but express their beliefs in strong words like these: "Co-operation through the agency of great corporations has done much for modern development. This form of industrial co-operation will be supplemented by certain forms of co-operation through government. The collectivism of the corporation will not be done away with, but it will not monopolize the field of effort. Collectivism through government will have its part to play. We are on

the eve of great movements intended for the advancement of man. The public service will constantly improve, the public servant will advance in efficiency, in disinterestedness, and in patriotic integrity. The government will not simply be a machine to rule but it will be a machine to administer, and the constantly increasing intelligence of the voters of the country will see to it that such administration of government by all the people will be for the best interests of all the people."

Let us read carefully the words of that man of the people, Gifford Pinchot—a follower of Roosevelt, of whom it has been said that he found the American people in thought, in conduct, and in aspirations, veering away from the good old standards, and he called them back. Gifford Pinchot, in a speech before the Irrigation Congress at Spokane, said: "We are coming to see that the plain American citizen is the man to work for. The imagination is staggered by the magnitude of the price for which we work. If we succeed there will exist upon this continent a sane, strong people living through the centuries in a

land subdued and controlled for the service of the people, its rightful masters, owned by the many and not by the few. If we fail, the great interests, increasing their control of our natural resources, will thereby control the country more and more, and the rights of the people will fade into the privileges of concentrated wealth. The man who really counts is the plain American citizen. This is the man for whom the Roosevelt policies were created, and his welfare is the end to which the Roosevelt policies lead.

"I stand for the Roosevelt policies because they set the common good of all of us above the private gain of some of us, because they recognize the livelihood of the small man as more important to the nation than the profit of the big man; because they oppose all useless waste at present at the cost of robbing the future; because they demand the complete, sane, and orderly development of all our natural resources, not forgetting our rivers; because they insist upon equality of opportunity and denounce monopoly and special privilege; because discarding false issues, they deal directly with the vital questions that really make a

difference with the welfare of us all—the most of all, because in them the plain American always and everywhere holds the first place. And I propose to stand for them while I have the strength to stand for anything.”

Much remains to be done, but here again will agitation, education and inspiration aid the people in coming to their own. Inspirational leaders there are, counted now by the hundreds; of constructive leaders, too, there are many, who are organizing, directing, and training the people. There are also insurgents in Congress who will not yield to the party-whip, and they are increasing in number every year. Of educators in the school of citizenship there is a large host, who are training the youth and the foreigner in the higher ideals of democracy. The People's Lobby in many legislatures has come to stay, a sleepless guard in the interest of the many.

As we draw near to the democratic ideal, we find that although this is a representative government, we, the people, can educate our congressmen, and make it possible for them to serve the people more wisely and efficiently. If the humblest citizen will write his repre-

sentative at Washington, expressing his views on all important questions, and do this before pledges have been made, and lines closely drawn, but only, of course, after the writer has given the subject the most careful thought and study, the result of such correspondence in the education of the law-maker cannot fail to be beneficial.* He will realize that he is elected, not for the spoils of office, not to use his position as a means for graft, but rather to represent the best thought of his constituents on all subjects affecting the common good. When the people do their part, there will be less reason for demanding the referendum or instituting the recall.

It has been necessary to use dark colors in painting the picture of present conditions, but the black cloud may make the silver lining more striking, and the sunburst seem more glorious.

*Write to your Congressman.

The *Outlook* urgently recommends to its readers, in all parts of the country, to watch for the President's message, and when it appears, to write to their respective Senators and Representatives urging upon them co-operation in securing the necessary legislation. The special interests will be busy urging their private claims on Congress. The public must also be busy in urging the public claims on Congress. Remember also that private personal letters are worth immeasurably more than general petitions or signatures attached to printed or typewritten copies of the same letter.

Outlook, Nov. 27, 1909

The evils of democracy are disappearing as the people call for more democracy. Destructive competition is giving way to co-operation. Collectivism through trusts and corporations is being merged into collectivism through government. The people are aroused, politics are being purified, honest, efficient men are everywhere being placed in office by determined electors. The good of the many and not the enrichment of the few is the new ideal. A venal press is being replaced by journals of highest purpose, whose editors cannot be bought nor bribed by big business interests, or by the political machine. Democracy—the rule of the people—in state and in industry, is emerging from the realm of theory and is entering the realm of the actual. Conscience, courage, and co-operation will bring the realization of the ideal.

This volume is but “a book of beginnings,” yet all who have ever traced world movements from small beginnings to successful terminations will be able to foresee the future scope of national activities, even though but suggested by what has already been undertaken.

Optimists, we must be, when we consider

that our government is in social service; and that this nation as a nation is at work in human uplift.

With so much evidence of the coming of a new day, hope cannot die, and all citizens ought surely to take courage and act as men, at a time when it means more to live for one's country than to die for it.

(The End.)

APPENDIX I

FAMOUS ACT THAT AUTHORIZES RECLAMATION WORK

An act appropriating the receipts from the sale and disposal of public lands in certain states and territories to the construction of irrigation works for the reclamation of arid lands.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all moneys received from the sale and disposal of public lands in Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, and Wyoming, beginning with the fiscal year ending June 30, 1901, including the surplus of fees and commissions in excess of allowances to registers and receivers, and excepting the 5 per centum of the proceeds of the sales of public lands in the above states set aside by law for educational and other purposes, shall be, and the same are hereby, reserved, set aside and appropriated as a special fund in the Treasury to be known as the "Reclamation Fund," to be used in the examination and survey for and the construction and maintenance of irrigation works for the storage, diversion and development of waters for the reclamation of arid and semi-arid lands in the said states and territories, and for the payment of all other expenditures provided for in this act. Provided, That in case the receipts from the sale and disposal of lands referred to in this section are insufficient to meet the requirements for the support of agricultural colleges in the several states and territories, under the act of August 30, 1890, entitled "An act to apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts, established under the provisions of an act of Congress approved July 2, 1862," the deficiency, if any, in the sum necessary for the support of the said colleges shall be provided for from moneys in the Treasury not otherwise appropriated.

Section 2. That the Secretary of the Interior is hereby authorized and directed to make examinations and surveys for, and to locate and construct, as herein provided, irrigation works for the storage, diversion and development of waters, including

artesian wells, and to report to Congress at the beginning of each regular session as to the results of such examinations and surveys, giving estimates of cost of all contemplated works, the quantity and location of the lands which can be irrigated therefrom, and all facts relative to the practicability of each irrigation project; also the cost of works in process of construction as well as of those which have been completed.

Section 3. That the Secretary of the Interior shall, before giving the public notice provided for in section four of this act, withdraw from public entry the lands required for any irrigation works contemplated under the provisions of this act, and shall restore to public entry any of the lands so withdrawn when, in his judgment, such lands are not required for the purposes of this act; and the Secretary of the Interior is hereby authorized, at or immediately prior to the time of beginning the surveys for any contemplated irrigation works, to withdraw from entry, except under the homestead laws, any public lands believed to be susceptible of irrigation from said works. Provided, That all lands entered and entries made under the homestead laws within areas so withdrawn during such withdrawal shall be subject to all the provisions, limitations, charges, terms, and conditions of this act; that said surveys shall be prosecuted diligently to completion, and upon the completion thereof, and of the necessary maps, plans and estimates of cost, the Secretary of the Interior shall determine whether or not said project is practicable and advisable, and if determined to be impracticable or unadvisable he shall thereupon restore said lands to entry; that public lands which it is proposed to irrigate by means of any contemplated works shall be subject to entry only under the provisions of the homestead laws in tracts of not less than forty nor more than one hundred and sixty acres, and shall be subject to the limitations, charges, terms and conditions herein provided. Provided, That the commutation provisions of the homestead laws shall not apply to entries made under this act.

Section 4. That upon the determination by the Secretary of the Interior that any irrigation project is practicable, he may cause to be let contracts for the construction of the same, in such portions or sections as it may be practicable to construct and complete as parts of the whole project, providing the necessary funds for such portions or sections are available in the Reclamation Fund, and thereupon he shall give public notice of the lands irri-gable under such project, and limit of area per entry, which limit shall represent the acreage which, in the opinion of the Secretary, may be reasonably required for the support of a family upon the

lands in question; also of the charges which shall be made per acre upon said entries, and upon lands in private ownership which may be irrigated by the waters of the said irrigation project, and the number of annual installments, not exceeding ten, in which such charges shall be paid and the time when such payments shall commence. The said charges shall be determined with a view of returning to the Reclamation Fund the estimated cost of construction of the project, and shall be apportioned equitably. Provided, that in all construction work eight hours shall constitute a day's work, and no Mongolian labor shall be employed thereon.

Section 5. That the entryman upon lands to be irrigated by such works shall, in addition to compliance with the homestead laws, reclaim at least one-half of the total irrigable area of his entry for agricultural purposes, and before receiving patent for the lands covered by his entry shall pay to the government the charges apportioned against such tract, as provided in section four. No right to the use of water for land in private ownership shall be sold for a tract exceeding one hundred and sixty acres to any one landowner, and no such sale shall be made to any landowner unless he be an actual bona fide resident on such land, or occupant thereof residing in the neighborhood of said land, and no such right shall permanently attach until all payments therefor are made. The annual installments shall be paid to the receiver of the local land office of the district in which the land is situated, and a failure to make any two payments when due shall render the entry subject to cancellation, with the forfeiture of all rights under this act, as well as of any moneys already paid thereon. All moneys received from the above sources shall be paid into the Reclamation Fund. Registers and receivers shall be allowed the usual commissions on all moneys paid for lands entered under this act.

Section 6. That the Secretary of the Interior is hereby authorized and directed to use the Reclamation Fund for the operation and maintenance of all reservoirs and irrigation works constructed under the provisions of this act: Provided, That when the payments required by this act are made for the major portion of the lands irrigated from the waters of any of the works herein provided for, then the management and operation of such irrigation works shall pass to the owners of the lands irrigated thereby, to be maintained at their expense under such form of organization and under such rules and regulations as may be acceptable to the Secretary of the Interior: Provided, That the title to and the management and operation of the reservoirs and the works necessary for their protection and operation shall remain in the government until otherwise provided by Congress.

Section 7. That where in carrying out the provisions of this act it becomes necessary to acquire any rights of property, the Secretary of the Interior is hereby authorized to acquire the same for the United States by purchase or by condemnation under judicial process, and to pay from the Reclamation Fund the sums which may be needed for that purpose, and it shall be the duty of the Attorney-General of the United States upon every application of the Secretary of the Interior under this act, to cause proceedings to be commenced for condemnation within thirty days from the receipt of the application at the Department of Justice.

Section 8. That nothing in this act shall be construed as affecting or intended to affect or in any way interfere with the laws of any state or territory relating to the control, appropriation, use, or distribution of water used in irrigation, or any vested right acquired thereunder, and the Secretary of the Interior, in carrying out the provisions of the act, shall proceed in conformity with such laws, and nothing herein shall in any way affect any right of any prioritor, or user of water in, to, or from any interstate stream or the waters thereof: Provided, That the right to the use of water acquired under the provisions of this act shall be appurtenant to the land irrigated, and beneficial use shall be the basis, the measure, and the limit of the right.

Section 9. That it is hereby declared to be the duty of the Secretary of the Interior in carrying out the provisions of this act, so far as the same may be practicable and subject to the existence of feasible irrigation projects, to expend the major portion of the funds arising from the sale of public lands within each state and territory herein before named for the benefit of arid and semi-arid lands within the limits of such state or territory: Provided, that the Secretary may temporarily use such portion of said funds for the benefit of arid or semi-arid lands in any particular state or territory hereinbefore named as he may deem advisable, but when so used the excess shall be restored to the fund as soon as practicable, to the end that ultimately, and in any event, within each ten-year period after the passage of this act, the expenditures for the benefit of the said states and territories shall be equalized according to the proportions and subject to the conditions as to practicability and feasibility aforesaid.

Section 10. That the Secretary of the Interior is hereby authorized to perform any and all acts and to make such rules and regulations as may be necessary and proper for the purpose of carrying the provisions of this act into full force and effect. (32 Stat. L., 388.)

Approved, June 17, 1902.

APPENDIX II

RECLAMATION PROJECTS

The following selections from the government report on reclamation projects will show something of the magnitude of the work now in progress.

COLORADO, UNCOMPAHGRE VALLEY PROJECT

This project provides for the diversion of waters of Gunnison River by means of a tunnel 30,583 feet in length, cross section ten and one half by eleven and one half feet, cement lined, with a capacity of 1,300 second feet. The tunnel passes through a range of mountains and carries the water to Uncompahgre Valley, where it will be used to supplement the local supply and extend the irrigable area to about 150,000 acres of land. Work on the tunnel was commenced in 1904 and it is expected that it will carry water during the present season. There are 108 miles of main canals in the distributing system.

The lands to be irrigated lie in Montrose and Delta Counties, township 15 S., ranges 94 to 96 W., 6th P.M., and townships 48 to 51 north, ranges 7 to 12 W., N.M.M. The general elevation is 5,000 to 6,400 feet above sea level and the temperature ranges from 20 degrees below to 98 degrees above zero. The watershed area is 3,850 square miles, and the estimated run-off of watershed is 1,500,000 acre-feet. The rainfall on the irrigable area is from 6 to 12 inches, and the rainfall on the watershed ranges from 7 to 20 inches.

The lands for which water is now available are all in private ownership, but upon the completion of the works about 15,000 acres will be opened to entry. The farm unit varies from 40 to 80 acres, and the duty of water is one second-foot at headgates per 80 acres. About 60,000 acres are suitable for raising first-class apples and peaches. Orchard lands produce as high as \$500 per acre net in the valley. The bottom lands, comprising from 80,000 to 90,000 acres, are adapted to the growing of alfalfa and sugar beets. Farmers make as high as \$80 per acre net from the latter crop, and from \$100 to \$200 per acre from potatoes. The Denver and Rio Grande railroad traverses the tract, with stations at Montrose, Olathe and Delta. The principal markets are Denver and the local mining camps, although the apples are shipped also to eastern markets.

IDAHO, MINIDOKA PROJECT.

The irrigable area under the Minidoka project consists of about 84,200 acres under the gravity system (77,320 acres being public, 6,680 state, and 200 acres private land,) and 49,900 acres under the pumping system. The lands lie on both sides of Snake River, in Lincoln and Cassia counties.

The engineering work involves the construction of a storage reservoir at Jackson Lake, Wyoming, on the headwaters of Snake River; a diversion, power and storage dam on Snake River, at a point about 6 miles south of Minidoka, Idaho; and two canal systems, one on each side of the river, heading at the diversion dam and covering lands in the vicinity of Acequia, Rupert, and Heyburn. Power is being developed at the diversion dam for generating electrical energy for pumping water to lands on the south side of the river too high to be reached by a gravity system. A temporary dam impounding 300,000 acre-feet of water has been erected at Jackson Lake, the diversion and power dam and the distributing canals for the gravity system are finished, and the power and pumping plants and canals for the pumping system are under construction. Both dams are earth and rock-fill type. The storage dam is 50 feet high, and 4,300 feet long, and the diversion dam has a height of 52 feet and a length of 600 feet. The gravity system has 130 miles of main canal and 190 miles of laterals, and there are 70 miles of main canal and 60 miles of laterals under the pumping system. The power transmission lines will have a length of from 13 to 20 miles.

The soil is sandy loam and volcanic ash, free from alkali and exceedingly fertile. The sandy soil is particularly adapted to the raising of alfalfa, potatoes, beet and other root crops, as well as melons, strawberries, etc. It is also especially adapted to the cultivation of sugar beets. The ashy formation is better adapted to grain, orchards, etc. Noting the success of farmers on the nearest cultivated land the settlers under the Minidoka project planted more than a thousand acres to apples in 1908. It is believed that all fruits of a hardy variety will produce abundantly in this section:

The general elevation is 4,200 feet above sea level, and the climate delightful. There is an ample water supply. The watershed area is 17,900 square miles, and the estimated annual run-off is 7,200,000 acre-feet. The average annual rainfall on the irrigable area is 15 to 19 inches.

The cost of water right is \$30 per acre, payable in ten annual installments, and the operation and maintenance charge for 1909 is 60 cents per acre for the gravity system. The building, opera-

tion and maintenance charges for the high areas to which water must be pumped have not been fixed.

The Oregon Short Line railway traverses the tract, with stations at the three government town sites, Heyburn, Rupert and Acequia, and also at Minidoka and Burley. The markets at present are the local towns and Montana. The farm unit is 40 acres within a radius of $1\frac{1}{2}$ miles from the center of each of the government town sites, and 80 acres on other lands.

WYOMING, SHOSHONE PROJECT:

This project involves the construction of an impounding dam at the head of the canyon of the Shoshone River in northern Wyoming, and the diversion of the waters for the irrigation of about 150,000 acres of public land. Fifteen thousand acres were opened to entry in 1908, and so rapidly were the lands taken up that work has been pushed on the second unit and it is expected that about 14,000 acres will be opened on May 22, 1909.

The elevation is about 4,500 feet above sea level, and the temperature ranges from 20 degrees below to 95 degrees above zero. The climate is dry and delightful and the soil of light, sandy and clay loam, produces abundantly when water is applied. Hay, wheat, oats, barley, and the hardier vegetables can be grown, also potatoes, sugar beets and hardy fruits. Large numbers of cattle and sheep are pastured on the surrounding ranges during the greater part of the year, but require feeding in the winter months, so that there is always a good home market for hay. Hog and poultry raising are also very profitable.

The farm unit varies from 40 to 80 acres of irrigable land. The building charge is \$46 per acre of irrigable land, payable in ten annual installments. The annual maintenance and operation charge at present is \$1 per acre. One-tenth of the building charge and one year's maintenance charge, or \$5.60 per acre, are due at the time of filing. The tract is traversed by the Chicago, Burlington and Quincy railroad, and has good transportation facilities to the big markets of the Mississippi Valley and the Pacific coast.

The watershed area is 1,380 square miles, the average annual rainfall on watershed 15 inches, and the estimated annual run-off is 1,000,000 acre-feet. The rainfall on the irrigable area is from 6 to 10 inches.

Considerable interest attaches to the engineering work on this project, as the Shoshone dam will be the highest structure of its kind in the world. It will be 328 $\frac{1}{2}$ feet high from bed rock to top of parapet walls, 108 feet thick on the bottom and only 200 feet

long on top. The reservoir created by it has an area of 6,600 acres and a capacity of 456,000 acre-feet. The diversion dam, which turns the waters of the river through a tunnel $3\frac{1}{2}$ miles long, into the main canal, is a reinforced gravity structure 18 feet high and 400 feet long.

Four flourishing towns, Cody, Garland, Powell, and Ralston are located on the project. They contain schools, churches, banks, newspapers, manufacturing establishments, hotels, stores, etc., and offer opportunities for professional and business men and artisans.

The surrounding mountains are covered with spruce and fir, and supply the farmers with timber and the stockmen with summer range. Coal mines located in the vicinity supply cheap fuel for domestic and manufacturing purposes. Well water of good quality is found at depths varying from 30 to 50 feet.

MONTANA, SUN RIVER PROJECT.

The lands under this project are located in Teton, Lewis and Clark, Choteau and Cascade counties, about 25 miles from Great Falls. Sun River Valley is about 70 miles long and from one to five miles wide. The ultimate development of the project involves the reclamation of 276,000 acres of land. A compact body of 17,000 acres, known as the Fort Shaw unit has been opened to entry and is being rapidly settled.

The soil is a sandy loam, clay, adobe, and alluvium. There is no sage or other brush to be cleared. The principal crops are alfalfa, hay, grain, vegetables and sugar beets. The general elevation is 3,700 feet above sea level and the temperature ranges from 40 degrees below to 100 degrees above zero. Fine grazing lands surround the project. The farm units vary from 40 to 160 acres of irrigable land. Wherever practicable, a tract of grazing land is included in the farm unit.

The watershed area consists of 850 square miles on Sun River and 290 square miles on Teton River, and the estimated annual runoff varies from 400,000 to 1,000,000 acre-feet. The average annual rainfall on the irrigable area is 12 inches.

Farms under this project are obtainable under the homestead law, subject to the charges of actual cost of water upon the land. This charge has been fixed at \$30 per acre of irrigable land in not less than five nor more than ten annual installments. At present the operation and maintenance charge is 50 cents per acre per annum, and the sum of \$3.50 is due and payable at the time of making entry.

An interesting feature in connection with this project is the

establishment of villages every six miles. In connection with the Fort Shaw unit already opened the villages of Fort Shas and Simms have been established and town lots may be purchased at the local land office at Great Falls.

NEVADA, TRUCKEE-CARSON PROJECT.

This project is located in Western Nevada, in Churchill, Lyon, and Storey counties, townships 16 to 24 north, ranges 21 to 31 east, M.D.M. The first unit of the project was opened in 1907 and lands are now subject to homestead entry. In addition to the land office filing fee, each settler is required to pay \$3 per acre annually for ten years, without interest on deferred payments. An annual maintenance fee of 60 cents per acre is charged in addition. The first payment of \$3.60 per acre must be paid at the time of filing on the land. The farm unit is 80 acres.

The climate in this valley is healthful and mild. The elevation above sea level is about 4,000 feet, and the temperature ranges from 12 degrees below to 112 degrees above zero. It is so dry, however, that the extremes, which seldom occur, are not injurious. The average rainfall on the irrigable area is 4 inches per annum. The soil is sandy loam, clay loam, and volcanic ash, requiring 3 acre-feet of water per annum for each acre. The valley will produce every variety of crop grown in the north temperature zone. Alfalfa, wheat, barley, and oats grow luxuriantly, and corn is also a profitable crop. Apples, pears, peaches, apricots, cherries, potatoes, and garden vegetables do well and find a ready market in the nearby mining towns. The Southern Pacific and Nevada and California railroads traverse the tract and furnish transportation to the markets of the country.

The watershed area is 3,450 square miles, the annual rainfall on the watershed, 25 inches, and the estimated run-off, 1,000,000 acre-feet.

A dam has been built on Truckee River, near Wadsworth, to turn the flow of the stream into a canal 31 miles long, which carries the waters to Carson River. Here a diversion dam turns the waters as needed into two main canals. The first unit of this project, which is now complete, involves more than 600 miles of canals and laterals, 50,000 feet of dikes and the dams on Truckee and Carson Rivers. The project in its entirety will irrigate about 400,000 acres of land and will involve the construction of several storage reservoirs and the development of power.

APPENDIX III

METHOD OF OBTAINING HOMESTEAD LANDS

The General Land Office does not issue maps showing the location of vacant public land subject to entry. This information can be reliably obtained only from the records of the various district land offices, which are located as follows:

<i>Alabama</i>	<i>Idaho</i>
Montgomery	Blackfoot
<i>Alaska</i>	Boise
Fairbanks	Coeur d'Alene
Juneau	Halley
Nome	Lewiston
<i>Arizona</i>	<i>Iowa</i>
Phoenix	Des Moines
<i>Arkansas</i>	<i>Kansas</i>
Camden	Dodge City
Harrison	Topeka
Little Rock	<i>Louisiana</i>
<i>California</i>	Natchitoches
Eureka	New Orleans
Independence	<i>Michigan</i>
Los Angeles	Marquette
Oakland	<i>Minnesota</i>
Redding	Cass Lake
Sacramento	Crookston
Susanville	Duluth
Visalia	<i>Mississippi</i>
<i>Colorado</i>	Jackson
Del Norte	<i>Missouri</i>
Denver	Springfield
Durango	<i>Montana</i>
Glenwood Springs	Billings
Hugo	Bozeman
Lamar	Glasgow
Leadville	Great Falls
Montrose	Helena
Pueblo	Kalispell
Sterling	Lewiston
<i>Florida</i>	Miles City
Gainesville	Missoula

Nebraska

Alliance
Broken Bow
Lincoln
North Platte
O'Neill
Valentine

Nevada

Carson City

New Mexico

Clayton
Las Cruces
Roswell
Santa Fe
Tucumcari

North Dakota

Bismarck
Devils Lake
Dickinson
Fargo
Minot
Williston

Oklahoma

El Reno
Guthrie
Lawton
Woodward

Oregon

Burns
LaGrande
Lakeview
Portland
Roseburg
The Dalles.

South Dakota

Aberdeen
Bellefourche
Chamberlain
Gregory
Lemmon
Pierre
Rapid City

Utah

Salt Lake City
Vernal

Washington

North Yakima
Olympia
Seattle
Spokane
Vancouver
Walla Walla
Waterville

Wisconsin

Wausau

Wyoming

Buffalo
Cheyenne
Douglas
Evanston
Lander
Sundance

No specific descriptions of the character of the land, climate, water, or timber can be given by the General Land office.

Unoccupied public lands, subject to settlement and entry, are to be found in all the states and territories west of the Mississippi River, except Iowa and Texas. There is also considerable vacant public land in the States of Michigan, Florida, Alabama, and Mississippi.

Persons who desire to make homestead entry should first decide where they wish to locate, then go or write to the local land office of the district in which the lands are situated, and obtain from the records diagrams of vacant lands.

A personal inspection of the lands should be made to ascertain if they are suitable, and, when satisfied on this point, entry can be made at the local land office in the manner prescribed by law, under the direction of the local land officers, who will give the applicant full information. Should a person desire to obtain information in regard to vacant lands in any district before going there for a personal inspection, he should address the register and receiver of the proper local land office, who will give him full information.

A list showing the general character of all the public lands remaining unentered in the various counties of the public-land states on the 30th day of the preceding June may be obtained at any time by addressing "The Commissioner of the General Land Office, Washington, D. C."

APPENDIX IV

REPORT ON FORESTS—SECOND GOVERNORS' CONFERENCE.

The United States now has 550,000,000 acres of forested lands, or about one-fourth of the total land area of continental United States. The original forests covered not less than 850,000,000 acres. Publicly owned forests cover one-fourth of the total and contain one-fifth of the timber standing; privately owned forests cover the remaining area and contain the remainder of timber standing. Scientific forestry is now practiced on seventy per cent. of the publicly owned forests and on less than one per cent of the privately owned forests. The total yearly growth of our forests is less than seven billions of cubic feet; we take from the forests each year, including waste in logging and manufacture, 23,000,000,000 cubic feet, or more than three times the annual production. We use annually 100,000,000 cords of firewood; 40,000,000,000 feet of lumber; more than 1,000,000,000 posts, poles and fence rails; 118,000,000 hewn ties; 1,500,000,000 staves; 133,000,000 sets of heading; 500,000,000 barrel hoops; 3,000,000 cords of native pulpwood; 165,000,000 cubic feet of round mine timbers, and 1,250,000 cords of wood for distillation. Not less than 50,000,000 acres of forest land is burned over annually, and since 1870 forest fires have each year destroyed an average of fifty lives and \$50,000,000 worth of timber. One-fourth of the standing timber is left or otherwise lost in logging; the boxing of long-leaf pine for turpentine has destroyed one-fifth of the forests worked; the loss in the mill is from one-third to two-thirds of the timber sawed and the loss in the mill product, from seasoning and fitting for use, is from one-seventh to one-fourth. In other words, only 320 feet of lumber is used for every 1,000 feet that stood in the forests. Our lumber cut has increased less than fifteen per cent in the last seven years, but the average price at the mill, for all kinds of lumber, has risen forty-nine per cent, and the rise continues. We invite by over-taxation the misuse of our forests, and we destroy by fire in one year timber enough to supply the whole nation for three months. We should plant, to protect farms from wind and to make stripped and treeless lands productive, an area larger than that of the States of Pennsylvania, Ohio, and West Virginia combined; so far, lands planted to trees make a total area less than Rhode Island. By reasonable thrift we can produce a

constant timber supply beyond our present needs, and with it conserve the usefulness of our streams for navigation, power, irrigation, and water supply. The conservation of public forests is the smaller task before the nation and the states; the larger task is to induce private owners—three millions of men—to take care of what they have, and to teach woodusers how not to waste. We must stop forest fires; we must, by careful logging and other methods, reduce waste and leave cutover lands productive; we must make the timber logged go further, by preservative treatment; we must avoid needless waste in the mill, the factory, and in use. We must plant up those lands, now treeless, which will be most useful under forests; we must so adjust taxes that cut-over lands can be held for a second timber crop, and we must recognize the fact that timber costs no less to grow than to log and saw. We must continue and perfect, by states and nation, the preservation by wise use of the forests already publicly owned, and we must extend the same treatment to other mountain forests more valuable *for the permanent benefit of the many than for the profit of the few.*

APPENDIX V

SCHOOLS OF FORESTRY

Post-Graduate Schools

YALE UNIVERSITY, FOREST SCHOOL, NEW HAVEN, CONN.—A two years' post-graduate course, leading to the degree of Master of Forestry. Under the direction of the officers of the Yale Forest School, a two months' summer course, July and August, is conducted at Milford, Pike County, Pa.

UNIVERSITY OF MICHIGAN, FOREST SCHOOL (Part of the general department of literature, science, and the arts,) ANN ARBOR, MICH.—A two years' post-graduate course, leading to the degree of Master of Science in Forestry. A six weeks' summer course, in July and August, is conducted on the state reserve at Roscommon.

HARVARD UNIVERSITY, FOREST SCHOOL, CAMBRIDGE, MASS.—A two years' graduate course, in connection with the Graduate School of Applied Science.

Undergraduate Schools

BILTMORE FOREST SCHOOL, BILTMORE, N. C.—Course covers one full year, leading to the degree of Bachelor of Forestry, and, with two years of practical forest work, the degree of Forest Engineer.

UNIVERSITY OF MINNESOTA, SCHOOL OF FORESTRY, ST. ANTHONY PARK, MINN.—A four years' undergraduate course leading to the degree of Bachelor of Science in forestry. A six weeks' summer course, in July and August, is conducted at the Itasca State Forest.

UNIVERSITY OF NEBRASKA, DEPARTMENT OF FORESTRY, LINCOLN, NEBR.—A four years' undergraduate course, leading to the degree of Bachelor of Science.

MICHIGAN STATE AGRICULTURAL COLLEGE, DEPARTMENT OF FORESTRY, EAST LANSING, MICH.—A four years' undergraduate course, leading to the degree of Bachelor of Science.

PENNSYLVANIA STATE COLLEGE, FOREST SCHOOL, STATE COLLEGE, PA.—A four years' undergraduate course, in connection with the State Department of Agriculture, leading to the degree of Bachelor of Science.

UNIVERSITY OF WASHINGTON, SCHOOL OF FORESTRY, SEATTLE, WASH.—A four years' undergraduate course leading to the degree of Bachelor of Science in forestry.

UNIVERSITY OF GEORGIA, DEPARTMENT OF FORESTRY, ATHENS, GA.—A four years' undergraduate course, leading to the degree of Bachelor of Science in Forestry.

COLORADO SCHOOL OF FORESTRY, COLORADO SPRINGS, COLO.—A three years' undergraduate course, leading to the degree of Bachelor of Forestry. No entrance requirements. A summer course is conducted at Manitou Park from July 15 to September 15.

THE MONT ALTO FORESTRY ACADEMY, MONT ALTO, PA.—Maintained by the Pennsylvania Department of Forestry for the training of young men of the state for work on the state forest reserves.

Courses in forestry are now given at the University of Maine, Orono, Me.; Iowa State College, Ames, Iowa; Mississippi Agricultural and Mechanical College, Agricultural College, Miss.; Purdue University, Lafayette, Ind.; Berea College, Berea, Ky.; College of Washington, Pullman, Wash.; Winona Agricultural Institute, Winona Lake, Ind.; North Dakota School of Forestry, Bottineau, N. Dak.

A course of lectures is given annually at the Massachusetts State Agricultural College, Amherst; at the Maryland Agricultural College, College Park; at the University of Wisconsin, Madison; at the Agricultural College of Utah, Logan; at the Connecticut Agricultural College, Storrs; and at the State Agricultural College of Colorado, Fort Collins.

(Taken from government report.)

APPENDIX VI

(a)

AGRICULTURAL COLLEGES AND OTHER INSTITUTIONS IN THE UNITED STATES HAVING COURSES IN AGRICULTURE

College instruction in agriculture is given in the colleges and universities receiving the benefits of the acts of Congress of July 2, 1862, and August 30, 1890, which are now in operation in all the states and territories, except Alaska, Hawaii, and Porto Rico. The total number of these institutions is sixty-five, of which sixty-three maintain courses of instruction in agriculture. In twenty-one states the agricultural colleges are departments of the state universities. In fifteen states and territories separate institutions having courses in agriculture are maintained for the colored race. All of the agricultural colleges for white persons and several of those for negroes offer four-year courses in agriculture and its related sciences leading to bachelors' degrees, and many provide for graduate study. About fifty-nine of these institutions also provide special, short, and correspondence courses in the different branches of agriculture, including agronomy, horticulture, animal husbandry, poultry raising, cheese making, dairying, sugar making, rural engineering, farm mechanics, and other technical subjects. The officers of the agricultural colleges engage quite largely in conducting farmers' institutes and various other forms of college extension. The agricultural experiment stations with very few exceptions are departments of the agricultural colleges. The total number of persons engaged in the work of education and research in the land-grant colleges and the experiment stations in 1907 was 6,243; the number of students in these colleges, 66,193; the number of students (white) in the four-year college courses in agriculture, 3,738; in short and special courses, 5,334. There were also 1,659 students in agriculture in the separate institutions for negroes. With a few exceptions, each of these colleges offers free tuition to residents of the state in which it is located. In the excepted cases scholarships are open to promising and energetic students; and, in all, opportunities are found for some to earn part of their expenses by their own labor. The expenses are from \$125 to \$300 for the school year.

APPENDIX VI

(b)

FARMERS' BULLETINS

The following is a list, by number, of the farmers' bulletins available for distribution. The bulletins entitled "Experiment Station Work" give in brief the results of experiments performed by the state experiment stations. Bulletins in this list will be sent free to any address in the United States on application to your senator, representative, or delegate in Congress, or to the Secretary of Agriculture, Washington, D. C.

22, The Feeding of Farm Animals, P. 40; 24, Hog Cholera and Swine Plague, P. 16; 27, Flax for Seed and Fiber, P. 16; 28, Weeds And How to Kill Them, P. 30; 30, Grape Diseases on the Pacific Coast, P. 15; 32, Silos and Silage, P. 30; 33, Peach Growing for Market, P. 24; 34, Meats: Composition and Cooking, P. 31; 35, Potato Culture, P. 24; 36, Cotton Seed and Its Products, P. 16; 42, Facts About Milk, P. 32; 44, Commercial Fertilizers, P. 38; 47, Insects Affecting the Cotton Plant, P. 32; 48, The Manuring of Cotton, P. 16; 51, Standard Varieties of Chickens, P. 48; 52, The Sugar Beet, P. 48; 54, Some Common Birds, P. 48; 55, The Dairy Herd, P. 30; 56, Experiment Station Work, I, P. 30; 58, The Soy Bean as a Forage Crop, P. 24; 59, Bee Keeping, P. 48; 60, Methods of Curing Tobacco, P. 24; 61, Asparagus Culture, P. 40; 62, Marketing Farm Produce, P. 31; 63, Care of Milk on the Farm, P. 40; 64, Ducks and Geese, P. 55; 65, Experiment Station Work, II, P. 32; 66, Meadows and Pastures, P. 30; 69, Experiment Station Work, III., P. 32; 71, Essentials in Beef Production, P. 24; 72, Cattle Ranges of the Southwest, P. 32; 73, Experiment Station Work, IV., P. 32; 74, Milk as Food, P. 39; 77, The Liming of Soils, P. 24; 78, Experiment Station Work, V., P. 32; 79, Experiment Station Work, VI., P. 27; 80, The Peach Twig-Borer, P. 16; 81, Corn Culture in the South, P. 24; 82, The Culture of Tobacco, P. 22; 83, Tobacco Soils, P. 23; 84, Experiment Station Work, VII., P. 32; 85, Fish as Food, P. 32; 86, Thirty Poisonous Plants, P. 32; 87, Experiment Station Work, VIII., P. 32; 88, Alkali Lands, P. 23; 91, Potato Diseases and Treatment, P. 15; 92, Experiment Station Work, IX., P. 30; 93, Sugar as Food, P. 31; 97, Experiment Station Work, X., P. 32; 98, Suggestions to Southern Farmers, P. 48; 99, Insect Enemies

of Shade Trees, P. 30; 100, Hog Raising in the South, P. 40; 101, Millets, P. 30; 102, Southern Forage Plants, P. 48; 103, Experiment Station Work, XI., P. 30; 104, Notes on Frost, P. 31; 105, Experiment Station Work, XII., P. 32; 106, Breeds of Dairy Cattle, P. 48; 107, Experiment Station Work, XIII., P. 32; 108, Saltbushes, P. 20; 110, Rice Culture in the United States, P. 28; 112, Bread and Bread-Making, P. 40; 113, The Apple and How to Grow it, P. 32; 114, Experiment Station Work, XIV., P. 28; 116, Irrigation in Fruit Growing, P. 48; 118, Grape Growing in the South, P. 32; 119, Experiment Station Work, XV., P. 30; 120, Insects Affecting Tobacco, P. 32; 121, Beans, Peas, and Other Legumes as Food, P. 38; 122, Experiment Station Work, XVI., P. 32; 124, Experiment Station Work, XVIII., P. 32; 125, Protection of Food Products from Injurious Temperatures, P. 24; 126, Practical Suggestions for Farm Buildings, P. 48; 127, Important Insecticides, P. 46; 128, Eggs and Their Uses as Food, P. 40; 131, Household Tests for Detection of Oleomargarine and Renovated Butter, P. 10; 132, Insect Enemies of Growing Wheat, P. 38; 133, Experiment Station Work, XVIII., P. 32; 134, Tree Planting in Rural School Grounds, P. 32; 135, Sorghum Sirup Manufacture, P. 40; 137, The Angora Goat, P. 48; 138, Irrigation in Field and Garden, P. 40; 139, Emmer: A Grain for the Semi-arid Regions, P. 16; 140, Pineapple Growing, P. 48; 142, Principles of Nutrition and Nutritive Value of Food, P. 48; 144, Experiment Station Work, XIX., P. 32; 145, Carbon Bisulphide as an Insecticide, P. 28; 147, Winter Forage Crops for the South, P. 40; 149, Experiment Station Work, XX., P. 32; 150, Clearing New Land, P. 24; 151, Dairying in the South, P. 48; 152, Scabies in Cattle, P. 32; 154, The Home Fruit Garden: Preparation and Care, P. 16; 155, How Insects Affect Health in Rural Districts, P. 19; 156, The Home Vineyard, P. 22; 157, The Propagation of Plants, P. 24; 158, How to Build Small Irrigation Ditches, P. 28; 159, Scab in Sheep, P. 48; 161, Practical Suggestions for Fruit Growers, P. 30; 162, Experiment Station Work, XXI., P. 32; 164, Rape as a Forage Crop, P. 16; 165, Silkworm Culture, P. 32; 166, Cheese Making on the Farm, P. 16; 167, Cassava, P. 32; 168, Pearl Millet, P. 16; 169, Experiment Station Work, XXII., P. 32; 170, Principles of Horse Feeding, P. 44; 172, Scale Insects and Mites on Citrus Trees, P. 43; 173, Primer of Forestry, P. 48; 174, Broom Corn, P. 30; 175, Home Manufacture and Use of Unfermented Grape Juice, P. 16; 176, Cranberry Culture, P. 20; 177, Squab Raising, P. 32; 178, Insects Injurious in Cranberry Culture, P. 32; 179, Horseshoeing, P. 30; 181, Pruning, P. 39; 182, Poultry as Food, P. 40; 183, Meat on the Farm: Butchering, Curing, and Keeping, P. 37;

185, Beautifying the Home Grounds, P. 24; 186, Experiment Station Work, XXIII., P. 32; 187, Drainage of Farm Lands, P. 38; 188, Weeds Used in Medicine, P. 45; 190, Experiment Station Work, XXIV., P. 32; 192, Barnyard Manure, P. 32; 193, Experiment Station Work, XXV., P. 32; 194, Alfalfa Seed, P. 14; 195, Annual Flowering Plants, P. 48; 196, Usefulness of the American Toad, P. 16; 197, Importation of Game Birds and Eggs for Propagation, P. 30; 198, Strawberries, P. 24; 199, Corn Growing, P. 32; 200, Turkeys, P. 40; 201, Cream Separator on Western Farms, P. 23; 202, Experiment Station Work, XXVI., P. 32; 203, Canned Fruits, Preserves and Jellies, P. 32; 204, The Cultivation of Mushrooms, P. 24; 205, Pig Management, P. 45; 206, Milk Fever and Its Treatment, P. 16; 208, Varieties of Fruits Recommended for Planting, P. 48; 209, Controlling the Boll Weevil in Cotton Seed and at Ginneries, P. 32; 210, Experiment Station Work, XXVII., P. 32; 211, The Use of Paris Green in Controlling the Cotton Boll Weevil, P. 23; 213, Raspberries, P. 38; 215, Alfalfa Growing, P. 40; 217, Essential Steps in Securing an Early Crop of Cotton, P. 16; 218, The School Garden, P. 40; 219, Lessons from the Grain Rust Epidemic of 1904, P. 24; 220, Tomatoes, P. 32; 221, Fungous Diseases of the Cranberry, P. 16; 222, Experiment Station Work, XXVIII., P. 32; 223, Miscellaneous Cotton Insects in Texas, P. 24; 224, Canadian Field Peas, P. 16; 225, Experiment Station Work, XXIX., P. 32; 226, Relation of Coyotes to stock Raising in the West, P. 24; 227, Experiment Station Work, XXX., P. 32; 228, Forest Planting and Farm Management, P. 22; 229, The Production of Good Seed Corn, P. 24; 231, Spraying for Cucumber and Melon Diseases, P. 24; 232, Okra: Its Culture and Uses, P. 16; 233, Experiment Station Work, XXXI., P. 32; 234, The Guinea Fowl, p. 24; 235, Preparation of Cement Concrete, P. 32; 236, Incubation and Incubators, P. 32; 237, Experiment Station Work, XXXII., P. 32; 238, Citrus Fruit Growing in the Gulf States, P. 48; 239, The Corrosion of Fence Wire, P. 32; 241, Butter Making on the Farm, P. 32; 242, An Example of Model Farming, P. 16; 243, Fungicides and Their Use in Preventing Diseases of Fruits, P. 32; 244, Experiment Station Work, XXXIII., P. 32; 245, Renovation of Worn-Out Soils, P. 16; 246, Saccharine Sorghums for Forage, P. 37; 248, The Lawn, P. 20; 249, Cereal Breakfast Foods, P. 36; 250, The Prevention of Wheat Smut and Loose Smut of Oats, P. 16; 251, Experiment Station Work, XXXIV., P. 32; 252, Maple Sugar and Sirup, P. 36; 253, The Germination of Seed Corn, P. 16; 254, Cucumbers, P. 30; 255, The Home Vegetable Garden, P. 47; 256, Preparation of Vegetables for the Table, P. 48; 257, Soil Fertility, P. 39; 258, Texas or Tick Fever

and Its Prevention, P. 45; 259, Experiment Station Work, XXXV, P. 32; 260, Seed of Red Clover and Its Impurities, P. 24; 241, The Cattle Tick, P. 22; 262, Experiment Station Work, XXXVI, P. 32; 263, Practical Information for Beginners in Irrigation, P. 40; 264, The Brown-Tail Moth and How to Control It, P. 22; 266, Management of Soils to Conserve Moisture, P. 30; 267, Experiment Station Work, XXXVII, P. 32; 268, Industrial Alcohol: Sources and Manufacture, P. 45; 269, Industrial Alcohol: Uses and Statistics, P. 29; 270, Modern Conveniences for the Farm Home, P. 48; 271, Forage Crop Practices in Western Oregon and Western Washington, P. 39; 272, A Successful Hog and Seed-Corn Farm, P. 16; 273, Experiment Station Work, XXXVIII, P. 32; 274, Flax Culture, P. 36; 275, The Gypsy Moth and How to Control it, P. 22; 276, Experiment Station Work, XXXIX, P. 32; 277, The Use of Alcohol and Gasoline in Farm Engines, P. 40; 278, Leguminous Crops for Green Manuring, P. 27; 279, A Method of Eradicating Johnson Grass, P. 16; 280, A Profitable Tenant Dairy Farm, P. 16; 281, Experiment Station Work, XL, P. 32; 282, Celery, P. 36; 283, Spraying for Apple Diseases and the Codling Moth in the Ozarks, P. 42; 284, Insect and Fungous Enemies of the Grape East of the Rocky Mountains, P. 48; 285, The Advantage of Planting Heavy Cotton Seed, P. 16; 286, Comparative Value of Whole Cotton Seed and Cotton-seed Meal in Fertilizing Cotton, P. 14; 287, Poultry Management, P. 48; 288, Nonsaccharine Sorghums, P. 28; 289, Beans, P. 28; 290, The Cotton Bollworm, P. 32; 291, Evaporation of Apples, P. 38; 292, Cost of Filling Silos, P. 15; 293, Use of Fruit as Food, P. 38; 294, Farm Practice in the Columbia Basin Uplands, P. 30; 295, Potatoes and Other Root Crops as Food, P. 45; 296, Experiment Station Work, XLI, P. 32; 297, Methods of Destroying Rats, P. 8; 298, The Food Value of Corn and Corn Products, P. 40; 299, Diversified Farming Under the Plantation System, P. 14; 300, Some Important Grasses and Forage Plants for the Gulf Coast Region, P. 15; 301, Home-Grown Tea, P. 16; 302, Sea Island Cotton: Its Culture, Improvement, and Diseases, P. 48; 303, Corn Harvesting Machinery, P. 32; 304, Growing and Curing Hops, P. 39; 305, Experiment Station Work, XLII, P. 32; 306, Dodder in Relation to Farm Seeds, P. 27; 307, Roselle: Its Culture and Uses, P. 16; 308, Game Laws for 1907, P. 52; 309, Experiment Station Work, XLIII, P. 32; 310, A Successful Alabama Diversification Farm, P. 24; 311, Sand-Clay and Burnt-Clay Roads, P. 19; 312, A Successful Southern Hay Farm, P. 15; 313, Harvesting and Storing Corn, P. 29; 314, A Method of Breeding Early Cotton to Escape Boll-Weevil Damage, P. 28; 315, Progress in Legume

Innoculation, P. 20; 316, Experiment Station Work, XLIV, P. 32; 317, Experiment Station Work, XLV, P. 32; 318, Cowpeas, P. 28; 319, Demonstration Work in Cooperation with Southern Farmers, P. 22; 320, Experiment Station Work, XLVI, P. 32; 321, The Use of the Split-Log Drag on Earth Roads, P. 14; 322, Milo as a Dry-Land Grain Crop, P. 23; 323, Clover Farming on the Sandy Jack-Pine Lands of the North, P. 24; 324, Sweet Potatoes, P. 39; 325, Small Farms in the Corn Belt, P. 29; 326, Building up a run-down Cotton Plantation, P. 22; 327, The Conservation of Natural Resources, P. 12.

APPENDIX VI

(c)

THE AGRICULTURAL EXPERIMENT STATIONS

ALABAMA—College Station: Auburn; Canebrake Station: Uniontown; Tuskegee Station: Tuskegee Institute.

ALASKA—Sitka.

ARIZONA—Tucson.

ARKANSAS—Fayetteville.

CALIFORNIA—Berkeley.

COLORADO—Fort Collins.

CONNECTICUT—State Station: New Haven; Storrs Station: Storrs.

DELAWARE—Newark.

FLORIDA—Gainesville.

GEORGIA—Experiment.

HAWAII—Federal Station: Honolulu; Sugar Planters' Station: Honolulu.

IDAHO—Moscow.

ILLINOIS—Urbana.

INDIANA—Lafayette.

IOWA—Ames.

KANSAS—Manhattan.

KENTUCKY—Lexington.

LOUISIANA—State Station: Baton Rouge; Sugar Station: Audubon Park, New Orleans; North Louisiana Station: Calhoun.

MAINE—Orono.

MARYLAND—College Park.

MASSACHUSETTS—Amherst.

MICHIGAN—East Lansing.

MINNESOTA—St. Anthony Park, St. Paul.

MISSISSIPPI—Agricultural College.

MISSOURI—College Station: Columbia; Fruit Station: Mountain Grove.

- MONTANA—Bozeman.
NEBRASKA—Lincoln.
NEVADA—Reno.
NEW HAMPSHIRE—Durham.
NEW JERSEY—New Brunswick.
NEW MEXICO—Agricultural College.
NEW YORK—State Station: Geneva; Cornell Station: Ithaca.
NORTH CAROLINA—College Station: West Raleigh; State Station: Raleigh.
NORTH DAKOTA—Agricultural College.
OHIO—Wooster.
OKLAHOMA—Stillwater.
OREGON—Corvallis.
PENNSYLVANIA—State College; State College: Institute of Animal Nutrition.
PORTO RICO—Mayaguez.
RHODE ISLAND—Kingston.
SOUTH CAROLINA—Clemson College.
SOUTH DAKOTA—Brookings.
TENNESSEE—Knoxville.
TEXAS—College Station.
UTAH—Logan.
VERMONT—Burlington.
VIRGINIA—Blacksburg.
WASHINGTON—Pullman.
WEST VIRGINIA—Morgantown.
WISCONSIN—Madison.
WYOMING—Laramie.

APPENDIX VII

FILIPINO STUDENTS IN THE UNITED STATES

At the date of the annual government report, October 31, 1907, 123 Filipino students were being educated in the United States at the expense of the Philippine government, and one student, under the direction of the bureau, was being educated at his own expense. These students were attending institutions as shown in the following list:

Boulder, Colo.	St. Paul, Minn.
University of Colorado...1	College of St. Catherine...2
New Haven, Conn.	St. Louis, Mo.
Yale University1	St. Louis University.....1
District of Columbia.	Lincoln, Neb.
Georgetown University...1	University of Nebraska...6
George Washington Uni-	De Kalb, Ill.
versity1	Northern Illinois State
Chicago, Ill.	Normal School2
University of Chicago ...3	Macomb, Ill.
Rush Medical College ...2	State Normal School6
College of Physicians and	Normal, Ill.
Surgeons7	State Normal School1
Lewis Institute1	Urbana, Ill.
Armour Institute.....2	University of Illinois ...10
Northwestern University	Bloomington, Ind.
Law School.....1	Indiana University.....3
Northwestern University	Lafayette, Ind.
School of Pharmacy....1	Purdue University11
Northwestern University	Notre Dame, Ind.
Medical School2	St. Mary's Academy.....2
Manhattan, Kans.	Ames, Iowa
State College of Agricul-	State College of Agricul-
ture.....7	ture.....6
Boston, Mass.	Iowa City, Iowa.
Massachusetts Institute	University of Iowa.....4
of Technology1	Trenton, N. J.
Lowell, Mass.	State Normal School....1
Lowell Textile School ...1	Ithaca, N. Y.
Lansing, Mich.	Cornell University9
State Agricultural College 2	Columbus, Ohio.

Ohio State University...8
 Philadelphia, Pa.
 University of Pennsyl-
 vania2
 Drexel Institute.....3

Woman's Medical College 2
 Providence, R. I.
 Providence Technical
 High School.....1
 Madison, Wis.
 University of Wisconsin .9

The courses followed were as follows:—

Agriculture21
 Architecture 2
 Chemistry..... 2
 Civil engineering35
 Electrical engineering..... 1
 Mechanical engineering ..12
 Law10

Medicine17
 Normal (teaching)17
 Pharmacy 1
 Science 3
 Textile weaving 1
 Mining engineering 1

APPENDIX VIII

Extract From Naturalization Laws

Section 4. That an alien may be admitted to become a citizen of the United States in the following manner and not otherwise:

First. He shall declare on oath before the clerk of any court authorized by this act to naturalize aliens, or his authorized deputy, in the district in which such alien resides, two years at least prior to his admission, and after he has reached the age of eighteen years, that it is *bona fide* his intention to become a citizen of the United States, and to renounce forever all allegiance and fidelity to any foreign prince, potentate, state, or sovereignty, and particularly, by name, to the prince, potentate, state, or sovereignty of which the alien may be at the time a citizen or subject. And such declaration shall set forth the name, age, occupation, personal description, place of birth, last foreign residence, and allegiance, the date of arrival, the name of the vessel, if any, in which he came to the United States, and the present place of residence in the United States of said alien; PROVIDED, However, That no alien who, in conformity with the law in force at the date of his declaration, has declared his intention to become a citizen of the United States shall be required to renew such declaration.

Second. Not less than two years nor more than seven years after he has made such declaration of intention he shall make and file, in duplicate, a petition in writing, signed by the applicant in his own handwriting and duly verified, in which petition such applicant shall state his full name, his place of residence (by street and number, if possible,) his occupation, and, if possible, the date and place of his birth; the place from which he emigrated, and the date and place of his arrival in the United States, and, if he entered through a port, the name of the vessel on which he arrived; the time when and the place and name of the court where he declared his intention to become a citizen of the United States; if he is married he shall state the name of his wife, and, if possible, the country of her nativity and her place of residence at the time of filing his petition; and if he has children, the name, date, and place of birth and place of residence of each child living at the time of the filing of his petition; PROVIDED, That if he has filed his declaration before the passage of this act he shall not be required to sign the petition in his own handwriting.

The petition shall set forth that he is not a disbeliever in or opposed to organized government, or a member of or affiliated with any organization or body of persons teaching disbelief in or opposed to organized government, a polygamist or believer in the practice of polygamy, and that it is his intention to become a citizen of the United States and to renounce absolutely and forever all allegiance and fidelity to any foreign prince, potentate, state, or sovereignty, and particularly by name to the prince, potentate, state, or sovereignty, of which he at the time of filing of his petition may be a citizen or subject, and that it is his intention to reside permanently within the United States, and whether or not he has been denied admission as a citizen of the United States, and, if denied, the ground or grounds of such denial, the court or courts in which such decision was rendered, and that the cause for such denial has since been cured or removed, and every fact material to his naturalization and required to be proved upon the final hearing of his application.

The petition shall also be verified by the affidavits of at least two credible witnesses, who are citizens of the United States, and who shall state in their affidavits that they have personally known the applicant to be a resident of the United States for a period of at least five years continuously, and of the state, territory, or district in which the application is made for a period of at least one year immediately preceding the date of the filing of his petition, and that they each have personal knowledge that the petitioner is a person of good moral character, and that he is in every way qualified, in their opinion, to be admitted as a citizen of the United States.

At the time of filing his petition there shall be filed with the clerk of the court a certificate from the Department of Commerce and Labor. If the petitioner arrives in the United States after the passage of this act, stating the date, place, and manner of his arrival in the United States, and the declaration of intention of such petitioner, which certificate and declaration shall be attached to and made a part of said petition.

Third. He shall, before he is admitted to citizenship, declare on oath in open court that he will support the Constitution of the United States, and that he absolutely and entirely renounces and abjures all allegiance and fidelity to any foreign prince, potentate, state, or sovereignty of which he was before a citizen or subject; that he will support and defend the Constitution and laws of the United States against all enemies, foreign and domestic, and bear true faith and allegiance to the same.

Fourth. It shall be made to appear to the satisfaction of the court admitting any alien to citizenship that immediately pre-

ceding the date of his application he has resided continuously within the United States five years at least, and within the state or territory where such court is at the time held one year at least, and that during that time he has behaved as a man of good moral character, attached to the principles of the Constitution of the United States, and well disposed to the good order and happiness of the same. In addition to the oath of the applicant, the testimony of at least two witnesses, citizens of the United States, as to the facts of residence, moral character, and attachment to the principles of the Constitution shall be required, and the name, place of residence, and occupation of each witness shall be set forth in the record.

APPENDIX IX

PROVISION REGARDING THE EXCLUSION OF FLIES

From the sanitary code, that section regarding flies suggests a plan of construction which is worthy of imitation by every large employer of labor.

The most important sanitary provision in connection with camps is that of exclusion of flies from cook tents, mess tents, and privy vaults; yet this is the very provision which is most frequently overlooked. According to the report of the commission appointed by President McKinley to investigate into the occurrence of typhoid fever among the soldiers during the Spanish War, almost every outbreak which occurred was due to the lack of sufficient protection against flies. Therefore special care should be taken to exclude flies from all places in which food stuffs are exposed, and, if necessary, in the large camps a man should be detailed to accomplish this purpose.

Mess and cook tents or houses should be provided with screens at all windows, and each door which leads into the outer air should be provided with a vestibule about four feet square, constructed in the following manner: The dividing partition and the door between the cook or mess tent and the vestibule should be of wood, as well as the side walls of the vestibule, for a distance of about one foot from the dividing wall. The door and walls should be painted black or some dark color. The remainder of the vestibule should be of durable wire netting and the door leading out from the vestibule of the same material. With such a provision the flies which enter the outer screen door during the time when people are passing through will be caught in the vestibule and will congregate upon the wire part of the vestibule in preference to the dark colored wood next to the cook or mess tent, and only a very small proportion of the flies entering the vestibule will under such conditions escape into the larger apartment.

APPENDIX X

TYPHOID

Typhoid fever is due to a very small vegetable organism, the typhoid bacillus. These little germs grow in the human body in countless millions, and as they die and disintegrate they set free a poison which causes the symptoms of typhoid fever. The typhoid fever germs are thrown off from a typhoid patient in all the excretions. Hence all these excretions are to be regarded as highly infectious, that is, they are full of typhoid germs.

Good management of a typhoid fever case has for its object the prevention of these germs reaching other people and producing other cases of typhoid. To this end the excretions, that is the urine and stools, of typhoid patients should all be either promptly emptied into the city sewer, or, where there is no sewer connection, disinfected by the addition of ten per cent. formalin equal in quantity to the amount of the material to be disinfected, and left to stand two hours, before final disposition.

All carpets, rugs, etc., should early be removed from the sick room.

Eating utensils used by the patient, should be removed from the room after each meal, in a dish pan, and the pan immediately filled with boiling water and left to stand fifteen to twenty minutes before washing.

Soiled bed linen, night gowns, etc., should be moved from the room in a large vessel, say a zinc pail or tub, and covered with boiling water. Better still, set them on the stove and let them boil awhile.

Typhoid fever patients are never a source of danger to others, when such precautions are thoroughly observed.

But if they are neglected, what may happen? The typhoid bacillus is a living organism, possessed of strong vitality, and capable of self-propagation, under favorable conditions, even outside the human body. The favorable conditions are moisture, warmth and filth. When it is not destroyed, it is far more apt to find these conditions than any other. The privy vault, the cess-pool, the house-drain, the garbage heap, the slop-puddle of the back-yard, and even the earth, will afford a suitable soil for its reproduction and growth. Into some one of these places it is almost sure to go, and to maintain a vigorous existence for an indefinite time. If it remained in these places it would still be

harmless. But it does not remain there; on the other hand, it shows a most remarkable and persistent tendency to get into and infect the water supplies. Only a few years ago there were more than fifty cases of the disease in Waterbury, Conn., among the customers of a single dairyman, in consequence of the well in his barnyard becoming infected from a hired farm hand sick with typhoid fever. Another more extensive epidemic appeared in Stamford, traced to a polluted well in the barnyard of another dairyman, among whose customers there were more than three hundred and fifty victims.

The remarkable epidemic among the students of the Wesleyan University at Middletown illustrates another source of danger.

In this instance the medium of infection was raw oysters taken from the river at Fair Haven, near the mouth of a private sewer, which had received the non-disinfected dejections of typhoid fever patients. The use of milk from a certain dairy caused the loss of many lives at Stanford University.

The instances in which drinking water from wells and reservoirs has carried the disease are innumerable.

(Arranged from state and government reports.)

APPENDIX XI

FLORIDA STATE BOARD OF HEALTH HOOKWORM DISEASE

Treatment

The manner of administering thymol is very important. It has given been in the following ways: (a) as a dry powder; (b) in a syrup of acacia; (c) in capsules; (d) in cachets; (e) in pills.

As a dry powder it is very unpleasant to take and has won for itself in certain sections of the state (Florida), the local name of "hot powder." In syrup of acacia it may be given, but is still somewhat disagreeable. When given in capsules, they should be loosely filled and filled only when ready to use, for unless these precautions are taken the thymol will, in many instances, pass through the bowel in masses. Perhaps the most satisfactory method of administration is in cachets. By mixing equal quantities of the milk sugar with thymol, and pulverizing, cachets can be made up and kept on hand indefinitely. A convenient quantity for each cachet is ten grains of thymol and ten grains of milk sugar. Few patients will experience any difficulty in swallowing this morsel, which, when wet, partakes of the physical properties of an oyster. Thymol acts directly upon the parasite itself, killing it and causing it to let go and be expelled. This action is exerted in the crystalline form, for it is only slightly soluble in the intestines. It is therefore seen that in order to exert its maximum effect upon the worms, it must reach them in a finely divided state, and should remain in contact with them for some time.

It has accordingly been found best to administer the thymol on going to bed instead of in the morning as was formerly done. Let the patient take a saline purge in the early afternoon, take no supper, except perhaps a cup of tea, and an hour before going to bed give half the quantity of thymol, and on retiring, give the other half. In the morning give another saline purge, and look for the parasites. This has several advantages over giving it in the morning. It does not seem to disturb the sleep, and if any unpleasant symptoms should be experienced, it is while the patient is in bed, and it keeps the thymol in contact with the worms longer by several hours than when given in the morning.

Under this method of administering the dosage it is our experience that about forty per cent. of the cases expel all the worms with the first treatment. If eggs are found in the stools after three or four days, it shows that some of the worms have not been expelled, and the dose should be repeated. It not infrequently happens that the dose has to be repeated several times. It sometimes happens that in very chronic cases, it takes ten or twelve treatments, once a week, before the worms are all expelled.

The maximum doses of Thymol to be administered are as follows:

Under 5 years.....	7½ grains.
5 to 10 years.....	15 "
10 to 15 years.....	30 "
15 to 20 years.....	45 "
20 to 60 years.....	60 "
Above 60 years.....	45 "

APPENDIX XII

A Portion of the Davis Bill.

A BILL to provide an appropriation for agricultural and industrial instruction in secondary schools, for normal instruction in agricultural and industrial subjects in normal schools, and for branch agricultural experiment stations, and regulating the expenditure thereof.

BE IT ENACTED BY THE SENATE AND HOUSE OF REPRESENTATIVES OF THE UNITED STATES OF AMERICA IN CONGRESS ASSEMBLED, That commencing with the fiscal year beginning July first, nineteen hundred and eleven, there shall be, and hereby is, annually appropriated, to be paid as hereinafter provided, to each state and territory and to the District of Columbia, for the maintenance of instruction in agriculture and home economics in agricultural schools of secondary grade and instruction in mechanic arts and in home economics in city schools of secondary grade, a sum of money equal to not more than ten cents per capita of the population of each state and territory and the District of Columbia, respectively, as shown in the last preceding federal or state census: PROVIDED, That in any state with less than five counties and in any state or territory with less than one hundred thousand rural population there may be one agricultural secondary school, which shall receive not more than eight thousand dollars annually under the provisions of this act: PROVIDED, That commencing with the fiscal year beginning July first, nineteen hundred and eight, there shall be, and hereby is, annually appropriated to each state and territory and the District of Columbia, for the maintenance of normal instruction in agriculture, home economics, and mechanic arts in state and territorial normal schools now established or which may be hereafter established, an additional sum of money equal to not more than one cent per capita of the population of each state and territory and the District of Columbia, respectively as shown by the last preceding federal or state census: AND PROVIDED FURTHER, That the amount appropriated to any state or territory for normal schools shall be not less than the sum of two thousand dollars annually.

Section 2. That the funds thus appropriated for instruction shall be used only for distinctive studies in agriculture and home

economics in agricultural secondary schools, and for distinctive studies in mechanic arts and home economics in city schools, and for distinctive normal courses in agriculture, home economics, and mechanic arts in state and territorial normal schools, and that all states, territories, and the District of Columbia accepting these funds shall provide other funds with which to pay the cost of providing the necessary lands and buildings and to pay the cost of instruction in such other general studies as will complete a well-rounded secondary or normal school curriculum suited to the needs of the respective sections of the Union.

Section 3. That the Secretary of Agriculture shall annually estimate to Congress the allotments to be made to the respective states and territories and the District of Columbia under the provisions of this act and shall annually designate to the Secretary of the Treasury the sum apportioned, at not more than ten cents per capita on the population, to each incorporated city, town, or village containing not less than two thousand inhabitants for instruction in mechanic arts and home economics, and the sum apportioned, at not more than ten cents per capita, to the total rural and other population not included in said cities, towns, and villages of the respective states and territories for instruction in agriculture and home economics.

Section 4. That there shall be, and hereby is, annually appropriated out of any money in the Treasury not otherwise appropriated, to be paid as hereinafter provided, to each state and territory for the maintenance of branch agricultural experiment stations on the farms of the agricultural secondary schools appropriated for in this act a sum equal to one-fourth of the sum allotted to it under this act for agricultural secondary schools, said branch agricultural experiment stations to be under the direction of the state agricultural experiment stations now established or which may hereafter be established in the respective states and territories in accordance with the act of Congress approved March second, eighteen hundred and eighty-seven: PROVIDED, That no state or territory shall be entitled to the benefits of this section of this act until its legislature shall by law have provided for the establishment and the equipment of such branch stations and shall have provided for the annual maintenance of such branch stations a sum at least equivalent to that appropriated annually to the state or territory under this section of this act; and the sum paid to each state or territory under this section of this act shall be applied only to paying the necessary expenses of conducting by such branch experiment stations experiments bearing directly upon the agricultural industry of the United States, having due regard to the varying conditions and needs of the respective states and territories.

APPENDIX XIII

The Excluded classes

Section 2. That the following classes of aliens shall be excluded from admission into the United States: All idiots, imbeciles, feeble-minded persons, epileptics, insane persons, and persons who have been insane within five years previous; persons who have had two or more attacks of insanity at any time previously; paupers; persons likely to become a public charge; professional beggars; persons afflicted with tuberculosis or with a loathsome or dangerous contagious disease; persons not comprehended within any of the foregoing excluded classes who are found to be and are certified by the examining surgeon as being mentally or physically defective, such mental or physical defect being of a nature which may affect the ability of such alien to earn a living; persons who have been convicted of or admit having committed a felony or other crime or misdemeanor involving moral turpitude; polygamists, or persons who admit their belief in the practice of polygamy, anarchists, or persons who believe in or advocate the overthrow by force or violence of the government of the United States, or of all government, or of all forms of law, or the assassination of public officials; prostitutes, or women or girls coming into the United States for the purpose of prostitution or for any other immoral purpose; persons who procure or attempt to bring in prostitutes or women or girls for the purpose of prostitution or for any other immoral purpose; persons hereinafter called contract laborers, who have been induced or solicited to migrate to this country by offers or promises of employment or in consequence of agreements, oral, written or printed, express or implied, to perform labor in this country of any kind, skilled or unskilled; those who have been, within one year from the date of application for admission to the United States, deported as having been induced or solicited to migrate as above described; any person whose ticket or passage is paid for with the money of another, or who is assisted by others to come, unless it is affirmatively and satisfactorily shown that such person does not belong to one of the foregoing excluded classes, and that said ticket or passage was not paid for by any corporation, association, society, municipality, or foreign government, either directly or indirectly; all children under sixteen years of age, unaccompanied by one or

both of their parents, at the discretion of the Secretary of Commerce and Labor or under such regulations as he may from time to time prescribe: PROVIDED, That nothing in this act shall exclude, if otherwise admissible, persons convicted of an offense purely political, not involving moral turpitude; PROVIDED FURTHER, That the provisions of this section relating to the payments for tickets or passage by any corporation, association, society, municipality, or foreign government shall not apply to the tickets or passage of aliens in immediate and continuous transit through the United States to foreign contiguous territory: AND PROVIDED FURTHER, That skilled labor may be imported if labor of like kind unemployed can not be found in this country: AND PROVIDED FURTHER, That the provision of this law applicable to contract labor shall not be held to exclude professional actors, artists, lecturers, singers, ministers of any religious denomination, professors for colleges and seminaries, persons belonging to any recognized learned profession, or persons employed strictly as personal or domestic servants.

APPENDIX XIV

Origin and form of Government of the District of Columbia

The District of Columbia was established under the authority and direction of acts of Congress approved July 16, 1790, and March 3, 1791.

The local government of the District of Columbia is a municipal corporation having jurisdiction over the territory which "was ceded by the State of Maryland to the Congress of the United States for the permanent seat of the government of the United States."

This government is administered by a board of three commissioners having in general equal powers and duties.

Two of these commissioners, who must have been actual residents of the district for three years next before their appointment and have during that period claimed residence nowhere else, are appointed from civil life by the President of the United States and confirmed by the Senate of the United States for a term of three years each and until their successors are appointed and qualified.

The other commissioner is detailed from time to time by the President of the United States from the engineer corps of the United States army, and shall not be required to perform any other duty. This commissioner shall be selected from among the captains or officers of higher grade having served at least fifteen years in the corps of engineers of the army of the United States.

The salary of each of the commissioners is \$5,000 per annum.

One of the said commissioners shall be chosen president of the Board of Commissioners at their first meeting, and annually and whenever a vacancy shall occur thereafter.

The commissioners are in a general way vested with jurisdiction covering all the ordinary features of municipal government.

Congress has by sundry statutes empowered the commissioners to make building regulations; plumbing regulations; to make and enforce all such reasonable and usual police regulations as they may deem necessary for the protection of lives, limbs, health, comfort, and quiet of all persons, and the protection of all property within the district, and other regulations of a municipal nature.

INDEX

	<i>Page</i>
Agricultural Colleges	352
Hatch Act	352
Morrill Act	352
Davis Bill	350
Experiment Stations	350
Appalachian Forests	119
Australia Solving Social Problems	57
Alfred Nobel	461
Back to the Farm	191
Bureau of Animal Industry	144
Bureau of Entomology	146
Bureau of Immigration	194
Division of Information	394
Terence V. Powderly, plans of	391
Bureau of Standards	412
Boards of Health	266
Baroness Von Suttner	461
Carnegie Institute	348
Christ of the Andes	481
Civic Service, lists of	21
Captains of Industry in Social Service	24
City Departments in Social Service	29
Conservation	
Early Waste of Resources	98
Corporation Control	99
Grants made to Railroads	100
Conservation Congress, held in Washington	108
Coal, its waste and conservation	115
Commonwealths their real wealth	64

INDEX

	<i>Page</i>
Co-operation	135
Country Life Commission, report of	195
Census Office.....	411
Children's Bureau	437
Children's Charter	443
Contract Law Labor	372
Department of Education, its organization	308
Department of Commerce and Labor.....	406, 194
Bureau of Labor	407
Bureau of Corporations.....	409
Dr. H. W. Wiley	430
Department of the Interior	194
Devine, Dr., quotation	187
Dry Farming.....	154
Department of Agriculture	133
Direct Legislation.....	502
Education in Alaska	317
Electricity, its Departments from Water Power	125
England Solving Social Problems.....	46
Fertilizing Land	152
Farming, its history and development	140
Fisheries Commission	162
Factory Removal	179
Farm Unit City on Reclamation Projects	197
Government Ownership.....	415
Government Hospitals	282
A Study of Typhoid.....	286
Warring on Flies.....	297
Mosquitoes	291
Rats	298
Hookworm	300
Good Roads, the need for	230
U. S. Government Building	234
Division of	198
Governor Folk, quotation from	18
Governor Hughes, quotation from	34

INDEX

	<i>Page</i>
Germany Solving Problems	52
Hero Fund	482
Interparliamentary Union.....	459
Iwahig Penal Colony	485
International Congresses	315
Indian Education	326
Porto Rico	332
Hawaii.....	336
Philippines.....	338
Interstate Commission	416
Immigration	361
Its History.....	363
Head Tax.....	365
Excluded Classes	367
Immigrant	
In Ellis Island.....	388
Distribution of	391
Education of	401
North Carolina Colony	392
Individualism	9
Irrigation	
Its History.....	73
Failures in	77
Japan Regulates Monopoly	55
Jewish Removal Office.....	177
L'enfant's Plan of Washington	445
Leper Colony in the Philippines and Hawaiian Islands..	208
Lighthouse Board, its history.....	260
Life Saving Service, its history.....	250
Ministry of Fine Arts	449
Municipal Farm	33
Mexico Controls Railways.....	56
National Parks	450
Naturalization Laws	404
National Health	269
Navy Department	274

INDEX

	<i>Page</i>
U. S. Army	275
Marine Hospital Service	276
National University	344
National Forests	
Their Uses	102
Forest Ranges	104
New Zealand Solving Social Problems	57
Newlands Reclamation Bill.....	86
Newell, Frederick H., Head of Reclamation Service.....	82
Office of Experiment Station	434
Oil and Natural Gas Development	113
Peace Congresses	459
Peace Conference at The Hague.....	462
Peace Palace	470
Pan-American Conferences	475
Postal Savings Banks	220
In England	221
In the Philippines	222
Parcels Post.....	210
Postal Service	207
Public School, its development.....	306
Panama, care of laborers.....	226
Patent Office	411
Pure Food	423
Plant Industry	355
Poverty, Crime, Disease Preventable	9
Public School, new methods	31
People's Agricultural High Schools	35
Public Ownership	50
Public Land, its proper distribution	
Methods Used.....	66
Pre-emption.....	65
Homestead.....	67
Stone and Timber	67
Carey Act	79
Desert Land Law	79

INDEX

	<i>Page</i>
Powell, Major John W., a pioneer in irrigation	82
Pinchot, Gifford, quotation from	167
Roosevelt Policies	508
Roosevelt Dam	91
Roosevelt, Ex-president, quotation from	112
Rural Delivery	208
Research by Students	310
Reindeer in Alaska.....	323
Railway Accidents Preventable	54
Rochdale Co-operation	46
Riis, Jacob.....	165
Swamp Drainage Bill.....	95
Area of Swamp Lands	
Smythe, William C., Promoter of National Irrigational Congress.....	84
Switzerland, Most Democratic Country.....	56
Sweden Solving Social Problems	54
Socialized Capitalists, a new name applied	26
Social Service, the new ideal.....	7
Smithsonian Institute	345
Steamboat Inspection	261
Safeguarding Mines	252
Experiment Station.....	256
The Cost of War	257
The Slum, financial loss	43
A National Asset	32
Tenement Houses.....	170
Votes for Women	53
Wild Birds	163
Water Power	120
Waterways.....	122
Warehousing	134
Union High Schools	198
U. S. Geological Survey	412
Weather Bureau	354
How It Serves the People	242
Waste Labor on Waste Land	204



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